E. C. No. 1018

ESTIMATES COMMITTEE (1982-83)

(SEVENTH LOK SABHA)

FORTY-EIGHTH REPORT

ON

MINISTRY OF WORKS AND HOUSING

DRINKING WATER SUPPLY AND SANITATION

Presented to Lok Sabha on...

LOK SABHA SECRETARIAT
NEW DELHI

April, 1983/Chaitra, 1905, (Saka)

Price Rs 2.60

LIST OF AUTHORISED AGENTS FOR THE SALE OF LOK SABHA SECRETARIAT PUBLICATIONS

ANDHRA PRADESH

1. Andhra University General Co-operative Stores Ltd., Waltair (Visakhapatnam).

BIHAR

2. M/s. Crown Book Depot, Upper Bazar, Ranchi (Bihar).

GUJARAT

3. Vijay Stores, Station Road, Anard.

MADHYA PRADESH

4. Modern Bock House, Shiv Volas Palace, Indore City.

MAHARASHTRA

5. M/s. Sunderdas Gianchand, 601, Girgaum Road, near Princess Street, Bombay-2.

6. The International Book House Pvt., 9, Ash Lane, Mahatma Gandhi Road, Bombay-1.

7. The International Book Service, Deccan Gymkhana, Poona-4.

8. The Current Book House, Maruti Lane, Raghunath Dadaji Street, Bombay-1.

9. M/s. Usha Book Depot, 585/A, Chira Bazar Khan House, Girgaum Road, Bombay-2.

10. M & J Services, Publishers, Representatives Accounts & Law Book Sellers, Bahri Road, Bombay-15.

11. Popular Book Depot, Dr. Bhadkamkar Road, Bombay-400001.

MYSORE

12. M/s. Peoples Book House, Opp. Jaganmohan Palace, Mysore-1.

UTTAR PRADESH

13. Law Book Company, Sardar Patel Marg, Allahabad-1.

14. Law Publishers, Sardar Patel Marg, P.B. No. 77, Allahabad—U.P.

WEST BENGAL

15. Granthaloka, 5/1, Ambica Mookherjee Road, Belgharia, 24-Parganas.

16. W. Newman & Company Ltd., 3, Old Court House Street, Calcutta.

17. Mrs. Manimala, Buys & Sells, 128, Bow Bazar Street, Calcutta-12.

DELHI

18. Jain Book Agency, Connaught Place, New Delhi.

19. M/s. Sat Narain & Sons, 3141, Mohd. Ali Bazar, Mori Gate, Delhi.

CONTENTS

	PAGE
COMPOSITION OF THE COMMITTEE	(iii)
INTRODUCTION	(v)
CHAPTER I – ORGANISATION MATTERS	
(A) Responsibility of Central Government	1
(B) Central Public Health Environmental and Engineering Organisation	2
CHAPTER II – PROGRESS OF DRINKING WATER SUPPLY SCHEME	
(A) Coverage of population upto 31-3-1981	7
(B) Sixth Plan Targets	7
(C) Coverage of population in rural areas	7
(D) Needs of Scheduled Castes & Scheduled Tribes	11
(E) Coverage of population in urban areas	12
(F) Urban Water Supply Schemes during Sixth Plan peroiod	14
CHAPTER III – DRINKING WATER SUPPLY PROGRAMME	
(A) Norms of per capita availability of drinking water	18
(B) Problem villages	20
(C) Minimum Needs Programme	24
(D) Centrally Sponsored Accelerated Rural Water Supply Programme	25
(E) International Drinking Water Supply and Sanitation Decade	29
(F) Funds for Drinking Water Supply and Sanitation Programme	30
(G) Water pollution and Water Borne Diseases	33
CHAPTER IV – MATERIAL PLANNING AND PROCUREMENT	
(A) Material planning and procurement	39
(B) Availability and distribution of Rigs	42
(C) Hand-pump-Mark II	48
CHAPRER V – SANITATION FACILITIES	
(A) Sanitation under MNP	53
(B) Targets and achievements	53
CHAPTER VI – TRAINING AND RESEARCH	
(A) Public Health Engineering Training Programme	57
(B) Adequacy of trained man-power	60
(C) Research and Development	60
CHAPTER VII – INTER-MINISTERIAL CO-ORDINATION	
Inter-Ministerial Co-ordination.	63
APPENDIX	
Statement of Recommandations/Observations	70

ESTIMATES COMMITTEE

(1982-83)

CHAIRMAN

Shri Bansi Lal

MEMBERS

2. Begum Abida Ahmed
3. Shri Era Anbarasu
4. Shri P. Ankineedu Prasadrao
5. Shri A. K. Balan
6. Dr. Krupasindhu Bhoi
7. Shri Tridib Chaudhuri
8. Smt. Usha Prakash Choudhari
9. Prof. Madhu Dandavate
10. Shri V. Kishore Chandra S. Deo
11. Shri B. V. Desai
12. Shri Bheravedan K. Gadhvi
13. Shri Ghufran Azam
14. Shri Krishna Kumar Goyal
*15. Shri Chintamani Jena
16. Shri M. M. A. Khan
17. Shri Chingwang Konyak
18. Shri Kunwar Ram
19. Shri S. Murugain
20. Prof. Rupchand Pal
21. Shri Keshorao Pardhi
22. Smt. Sanyogita Rane
23. Shri M. Satyanarayana Rao

---

*Elected w.e.f. 14-10-1982 vice Shri Ram Chandra Rath appointed as Minister of State.

24. Shri Daulat Ram Saran
25. Shri Chandra Pal Singh
26. Shri Krishan Datt Sultanpuri
27. Shri Raghunath Singh Verma
28. Shri V. S. Vijayaraghavan
29. Shri Girdhari Lal Vyas
30. Shri Subhash Yadav

SECRETARIAT

1. Shri T. R. Krishnamachari—*Joint Secretary.*
2. Shri Bipin Behari—*Chief Financial Committee Officer.*
3. Shri D. M. Chanan—*Senior Financial Committee Officer.*

INTRODUCTION

I, the Chairman of Estimates Committee having been authorised by the Committee to submit the Report on their behalf, present this Forty-eighth Report on the Ministry of Works and Housing—Drinking Water Supply and Sanitation.

2. The Committee took evidence of the representatives of the Ministry of Works and Housing, Ministry of Health and Family Welfare and the Department of Environment on 14, 15, 16, 19 October, 1982, 2 November, 1982 and 25 January, 1983. The Committee wish to express their thanks to the Officers of the Ministries/Department for placing before them the material and information which they desired in connection with the examination of the subject and giving evidence before the Committee.

3. The Committee also wish to express their thanks to the representatives of the following Organisations/Institutes for giving evidence and making valuable suggestions to the Committee:—

(i) Kumari Surender Saini, former Chairman, Delhi Social Welfare Advisory Board, New Delhi.

(ii) Prof. P. Subba Rao, representative of All India Institute of Hygiene and Public Health, Calcutta.

(iii) Dr. Somnath Roy, Director, All India Institute of Health and Family Welfare, New Delhi.

4. The Committee also wish to express their thanks to all other institutions, bodies and individuals, who furnished memoranda on the subject to the Committee.

5. The report was considered and adopted by the Committee on 7 April, 1983.

6. For facility of reference the recommendations|observations of the Committee have been printed in thick type in the body of the Report, and have also been reproduced in a consolidated form in the Appendix to the Report.

NEW DELHI;
April 14, 1983
Chaitra 24, 1905 (*S*)

BANSI LAL,
Chairman,
Estimates Committee.

CHAPTER I

ORGANISATIONAL MATTERS

A. *Responsibility of Central Government*

1.1 The Ministry of Works & Housing have stated that Drinking Water Supply and Sanitation are State subjects and schemes are drawn up, implemented and monitored by the State Governments. The major portion of the funds required are provided in the State sector. However, in order to hasten the progress in the provision of safe drinking water to identified problem villages, where the position of availability of drinking water supply is more critical, the Central Government provides financial assistance under the Centrally Sponsored Accelerated Rural Water Supply Programme to the State Governments and Union Territory Administrations as a supplement to their resources. The projects under the Centrally Sponsored Programme are also drawn up and implemented by the State Govvernments after they are technically approved by the Ministry. The Central Government monitors progress of the programme for the supply of drinking water in problem villages through the Technical Wing of the Ministry of Works & Housing. Periodical progress reports are called for from the State Governments and the progress is test checked through field visits by officers of the Ministry of Works and Housing.

1.2 The role of the Central Government is, according to the Ministry, confined to:—

(i) Operating a Public Health Engineering Training Programme;

(ii) Giving financial assistance under the Centrally Sponsored Accelerated Rural Water Supply Programme to the State Governments to supplement their resources in providing safe drinking water to the identified problem villages;

(iii) Assisting the State Governments in obtaining financial aid from the World Bank as well as external bilateral agencies for the implementation of Water Supply and Sanitation projects;

(iv) Collaborating with international agencies like the World Health Organisation (WHO); United Nations Develop-

ment Programme (UNDP); United Nations Children's Fund (UNICEF) as well as bilateral agencies in obtaining technical assistance and equipment for key areas in the Water Supply and Sanitation sector.

1.3 Asked to state whether any thought has been given for extending the role of the Central Government in the matter so as to accelerate the programme of Drinking Water Supply and Sanitation, the Secretary, Ministry of Works and Housing stated in evidence that:—

"Drinking water supply is a subject which has been of very great importance. A lot of importance is attached to it and it is in the 20-Point Programme also. We have gone into this matter and there are a number of areas in which we have gone and they are either in the shape of guidance to the State Governments or helping them with financial assistance. So far as the resource aspect is concerned, there are two sources. One is M.N.P. and the other is A.R.P. In the course of mid-term plan review it will be our effort to augment the funds available.

We have ensured a closer monitoring and closer contact with the State Governments about the progress of the Schemes. We are also trying to make sure that whatever is provided in the Plan or M.N.P. does not remain on paper only but actually finds place under rural water supply in the inter-sectoral allocations made in the State Plans.

We very much hope that in view of the number of problem villages—about 2.31 lakhs we shall be able to provide additional funds under A.R.P."

B. *Central Public Health and Environment Engineering Organisation*

1.4 The Ministry of Works & Housing have stated that the major part of the functions and responsibilities on the subject of Drinking Water Supply and Sanitation is handled by the Central Public Health and Environmental Engineering Organisation (CPHEEO), which is the technical wing of the Ministry of Works and Housing.

Staff Strength of CPHEEO

1.5 The position with regard to the sanctioned strength and the staff in position in CPHEEO as on 15th July, 1982 has been indicated as follows:—

Designation	Strength	In position
(i) Adviser (PHEE)	1	1
(ii) Deputy Adviser (PHE)	6	5
(iii) Assistant Adviser (PHE)	13	7
(iv) Scientific Officer	1	1
(v) Statistical Officer	1	Vacant
(vi) Finance & Accounts Officer.	1	1

1.6 Asked to state whether the present sanctioned strength of CPHEEO as also its organisational pattern sufficient to enable it to efficiently discharge all the functions listed above, the representative of the Ministry stated in evidence that—

> "When we feel that it is inadequate, we have strengthened it. Recently, we have sanctioned a monitoring cell. We have also sanctioned an industrial economist with supporting staff at a high level, because we find that a number of these projects have got economic and financial aspects, particularly some of the bilateral programme. We find that the monitoring of this programme has improved considerably."

Monitoring Cell in CPHEEO

1.7 The Ministry have stated that "since the Drinking Water Supply and Sanitation Programme is in the State Sector, no appraisal of the work done is carried out by the Ministry of Works and Housing except monitoring of the progress under the ARP and MNP."

1.8 Asked to state the reasons as to why no appraisal was made and was it not considered necessary that monitoring and appraisal of the Programme at the Central level should be made, the representative of the Ministry stated in evidence that:—

> "the workload is no doubt heavy and the number of visits is increasing. As and when we find we need more staff, we

have been taking them. The functions of CWC are more or less identical with the functions of the CPHEEO, which is part of the Ministry. The only difference is, so far as the CWC is concerned, the turnover is very large, approximately Rs. 10,000 crores. Therefore, the magnitude of their task is much higher. So their staffing is in consonance with that type of work. Regarding consultancy and monitoring, we will definitely keep them in view.

We agree that it needs strengthening, because the schemes are bigger. So, monitoring also will need more staff."

1.9 Asked to state how monitoring of the progress of the programmes was being done, the representative of the Ministry stated:—

"One, the progress reports come to us with regard to coverage; two, our technical officers visit and test check as far as the rural water supply is concerned."

National Commission for Water Supply and Sanitation

1.10 A suggestion was made by the Conference of Chief Engineers that "in order to coordinate and help the State efforts and formulate national policy and provide guidance the Organisational set up at the national level is grossly inadequate. A strong organisation similar to the Central Water Commission should be created which might be designated 'National Commission for Water Supply and Sanitation'". A non-official had also made a similar suggestion to the Committee.

1.11 Giving his reaction to the above suggestion, the Secretary Ministry of Works and Housing stated in evidence that:—

"So far as the chief technical body which assists the Government in this matter is concerned, it is the C.P.H.E.E.O. Over the years, we have strengthened the CPHEEO. But considering the size of the task and the increased involvement of the Government of India in a programme which is widespread, both in the rural and urban areas, we think it is necessary to strengthen it further. A monitoring cell has been approved for the CPHEEO and the process of expansion is on. The training of the personnel is also under consideration. These are the two things that have to be done immediately. We have to increase the number of officers because they have to pay a visit to the number of States so that we will get a feed-back."

1.12 Asked to state his reaction to the specific suggestion about formation of National Commission for Water Supply and Sanitation, the witness stated—

> "Actually, it is a question of what name we want to give. The C.P.H.E.E.O. is really performing the same functions. The C.W.C. for instance, give clearance to the projects of major irrigation and medium irrigation.
>
> As a matter of fact, if you take the total size of the programme in the States under irrigation, it is something like Rs. 10,000 crores. Here it is about Rs. 2,000 crores. As I submitted earlier, the C.P.H.E.E.O. does scrutinise the schemes, gives clearance and so on. They are, more or less performing the same functions. We are proceeding on those lines. We have not decided to change the name but we are strengthening the CPHEEO keeping in view its increasing responsibility."

1.13 The Committee note that the functions of the Central Government in the matter of drinking water supply and sanitation are limited to arranging training and technical guidance and granting financial assistance to the States and Union Territories as well as monitoring the progress of the Centrally sponsored schemes. In view of the great importance of providing these basic amenities and the poor progress as well as the skewed pattern of development noted elsewhere in this Report, the Committee feel that Central Government ought to be involved better inter alia **augmenting the Central allocation of funds for this purpose. India is a signatory to the U.N. Resolution in regard to safe water supply and hygienic waste disposal and has pledged for full support to the international decade programme. It is, therefore, incumbent on the Central Government to ensure fulfilment of the international commitment.**

1.14 A major part of the functions and responsibilities of the Ministry of Works and Housing on the subject of drinking water supply and sanitation are being handled by the Central Public Health and Environmental Engineering Organisation (CPHEEO) which is the technical Wing of the Ministry. The Organisation has been entrusted with a variety of functions. The strength of officers and staff of the Organisation in position, however, appears to the Committee to be far too inadequate to discharge these functions effectively. The Committee would particularly lay stress on proper monitoring of the water supply and sanitation programmes being

implemented all over the country and scrutiny of progress reports received from the State Governments/Union Territory Administrations, making on-the-spot studies and taking corrective steps where necessary. The Secretary (Works & Housing) observed before the Committee that "considering the size of the task and the increased involvement of the Government of India in a programme which is widespread, both in the rural and urban areas, we think it is necessary to strengthen it (CPHEEO) further." The Committee recommend that the organisation should be adequately strengthened in quantitative and qualitative terms to function effectively as an apex body for guiding, coordinating and monitoring, the Drinking Water Supply and Sanitation Programme of the country. The Committee would also suggest that the Organisation should be given a statutory basis as has been done in the case of Central Water Commission.

CHAPTER II

PROGRESS OF DRINKING WATER SUPPLY SCHEME

A. *Coverage of Population upto* 31-3-1981

2.1 It has been stated that the picture of the population covered by drinking water supply facilities in the rural and urban areas of the country as on 31-3-1981 has been as follows:—

Component	Population covered
(i) Rural Water Supply . .	. 16.20 crores (30.94% of the total rural population).
(ii) Urban Water Supply .	. 11.14 crores (75.08% of the toral urban population).

B. *Sixth Plan Target*

2.2 Targets of population expected to be covered by water supply by 31-3-1985 have been fixed as follows:—

Rural Water Supply—29 crores (52 per cent of the projected total rural population in 1985)

Urban Water Supply—15.31 crores (93 per cent of the projected total urban population in 1985)

C. *Coverage of Population in Rural Areas*

2.3 As stated in an earlier paragraph in the rural areas the population covered under the Drinking Water Supply Programme upto 31-3-1981 was 16.20 crores or 30.94 per cent of the total rural population. Percentage wise break-up in the States/Union Territories in rural areas as on 31-3-1981 has been as under:—

States/Union Territories	Above 81%	Between 61-80%	Between 41-60%	Between 21-40%	Below 20%
1	2	3	4	5	6
1. Bihar		69.40			
2. Gujarat .		60.28			
3. Nagaland		67.21			

1	2	3	4	5	6
4. Arunachal Pradesh		64.58			
5. Pondicherry		70.05			
6. Andhra Pradesh			41.50		
7. Himachal Pradesh			46.35		
8. Tripura			40.89		
9. A & N Islands			53.10		
10. Delhi			56.80		
11. Dadra & Nagar Haveli			44.04		
12. Haryana				27.30	
13. Jammu & Kashmir				36.40	
14. Karnataka				31.30	
15. Kerala				28.41	
16. Madhya Pradesh				30.14	
17. Manipur				24.45	
18. Orissa				32.31	
19. Punjab				20.12	
20. Rajasthan				36.26	
21. Sikkim				23.64	
22. Tamil Nadu				20.57	
23. Goa, Daman & Diu				22.98	
24. Mizoram				32.00	
25. Assam					19.90
26. Maharashtra					19.19
27. Meghalaya					19.60
28. Uttar Pradesh					7.20
29. West Bengal					15.79
30. Lakshdweep					8.50
31. Chandigarh					–

2.4 From the information furnished to the Committee, it is seen that out of the total population covered upto 31-3-1981, the coverage in the following States/U.T.s has been less than 20 per cent:—

1.	Uttar Pradesh	7.20 %
2.	West Bengal	15.79 %
3.	Assam	19.00 %
4.	Maharashtra	19.90 %
5.	Meghalaya	19.60 %
6.	Lakshdweep	8.50 %

2.5 Asked to state the reasons for low coverage in these States/ Union Territories, particularly Uttar Pradesh and West Bengal, the witness stated that:—

> "The figure in respect of U.P. is really intriguing, I must confess, because the percentage of 7.2 seems to be very low. The development programmes which were on the ground in this region all these years have been there; rural water supply has been given a high priority. We are grateful that this thing has been pointed out to us. In fact, I was discussing this with my colleagues, and we propose to send out a team to U.P. to see how it is 7.20 percent. When I was in Lucknow the other day, I had noticed that, in respect of some of the programmes on the ground there was some lack of coordination."

2.6 Enquired specifically at what level was there lack of coordination, the witness stated:—

> "In reporting, for instance under the Community Development Programme, sinking of some 44 wells has not been reported. This was a few months ago. Following that, I propose to go into this in greater depth."

2.7 Later the Ministry in a written note stated that "the exact position about coverage of rural population in U.P. will be intimated as soon the position is rechecked by the State Government. The State Government has already been requested to do so."

Covering Villages areas with acute problems

2.8 In this context, the attention of the Ministry was drawn to a discussion raised in the Lok Sabha on 19th July, 1982, about the shortage of drinking water in 8 hill districts and Bundelkhand

region of U.P. It was stressed therein that if the Government did not prepare a crash programme, people of the region would have to leave their villages in the absence of Drinking Water Supply.

2.9 Asked to state whether any long-term arrangements have been made or not to solve the problem of Drinking Water in the hilly districts and other Regions where the problem of Drinking Water is more acute, the Secretary Ministry of Works & Housing stated in evidence that:—

> "As far as the Hill area is concerned, schemes coming from the States are examined and wherever necessary the schemes are revised. Hard rock area gets special attention for the allotment of rigs. This is taken into consideration. So far as hilly area is concerned, some States have special schemes, for example U.P."

2.10 Enquired further whether Government consider providing water to such of the villages which come by the either side of water pipelines the representative of the Ministry stated that:—

> "The point I wanted to make was that in the case of these urban schemes, we find that way-side villages are being served by the new schemes. There are a number of schemes which serve the villages. For example, when a major pipeline goes to Hyderabad and Secunderabad a number of villages are on either side of the pipeline are given connection. As far as the World Bank Credit is concerned, in Gujarat and other States they are preparing the schemes. They are ensuring that quite a few water supply schemes are implemented in Gujarat by which some towns and villages will get the benefit. The Rajasthan Schemes will have a World Bank Credit of Rs. 72 crores. Implementation of rural water supply schemes in the State will provide water supply for about 2,000 villages in the project area."

2.11 The witness also added that:—

> "Take for example the scheme for supply of water from the Rajasthan Canal. It is treated with high pressure pumps and then taken to a group of villages. In such cases they try to tap the rising main. If they try to do at the middle, there will be too much of pressure. All other villages will be affected. Normally, the tapping in the pressure main is not allowed because it will upset the complete hydraulic system."

D. *Needs of Scheduled Castes and Scheduled Tribes*

2.12 It has been stated in the material furnished to the Committee by the Ministry of Works and Housing that adequate attention has not been paid to the needs of the weaker sections particularly the Scheduled Castes and Scheduled Tribes. It has also been stated that in the progress Reports prescribed by the Ministry of Works and Housing for submission by the State Governments, information on the progress of coverage of the Scheduled Castes/Scheduled Tribes population has specifically been called for.

2.13 Enquired whether the water supply schemes approved by the Central Government in the past did not have any built-in provision for catering to the needs of the scheduled castes and scheduled tribes, the representative of the Ministry stated in evidence that:—

> "There are three or four ways in which we are ensuring that due attention is given to the needs of the Scheduled Castes and the Scheduled Tribes as far as rural water supply is concerned.
>
> In our progress report we are insisting that information regarding coverage of population of the Scheduled Castes and Scheduled Tribes should be supplied to us on a quarterly basis. The information has been coming in and we are putting this information together so that we can quantify the benefit available to the Scheduled Castes and Scheduled Tribes. In our guidelines, we have made it clear that we should provide at least one source in each problem village and an additional source preferably in Harijan bustees for every 250-300 population.
>
> Where we have piped water supply scheme, a fair number of stand-posts should be provided in the area inhabited by Scheduled castes."

2.14 The Secretary of the Ministry addead that:—

> "From the information furnished so far by the State Governments and Union Territories, for 1980-81, the coverage for the scheduled castes is 12.60 per cent and for scheduled tribes it is 9.36. Similarly for 1981-82, it is 14.88 in the case of scheduled castes and 10.54 in the case of scheduled tribes."

2.15 Asked to state as to when the schemes for providing drinking water supply in scheduled castes/scheduled tribes was likely to be completed, the Secretary, Works and Housing replied "by 1985."

2.16 Enquired whether any survey has been conducted by which it could be found as to what was the number of villages in which the population of scheduled castes and scheduled tribes had been covered, and how much population of this category remained to be covered as yet, the representative of the Ministry stated in evidence that:—

> "The Government of India as such have not conducted any detailed survey of S.C.S.T. population who do not have the benefit of potable drinking water supply. The objective of the programme is to give them one perennial source of drinking water supply for the entire population which is open to all communities. Therefore, when we achieve the objective of this programme hopefully at the end of five years, it is to benefit the entire population of the villages. It may include S.C.S.T. also. We are hoping to achieve the objective. We are very much concerned to quantify this so that we are able to know the percentage of population of SCST who have been covered. Therefore, in the progress reports, we are getting specially the population figures of SCST who have been covered so far so that we can keep an eye on that to find out whether those benefits are really going to them."

2.17 The Ministry in a subsequant written note have informed that they have initiated to cover information in more detail from the State Governments with regard to the number of villages/hamlets covered under the programme, especially those predominently populated by SC/ST. Circulars have been issued to all the states to provide this information to the Centre.

E. *Coverage of Population in Urban Areas*

2.18 From the information furnished by the Ministry to the Committee, it is seen that in the urban areas the population covered by drinking water supply as on 31-3-1981 has been 11.14 crores or 75.08

per cent of the total urban population. Percentage-wise break-up of the coverage in the States/Union Territories is as under:—

Coverage of Urban Areas for Water supply

	State/Union Territories	Between 81=100%	Between 61=80%	Between 41=60%	Below 40%
1.	Gujarat	95.90			
2.	Himachal Pradesh	96.73			
3.	Jammu & Kashmir	100.00			
4.	Karnataka	99.86			
5.	Maharashtra	99.19			
6.	Tamil Nadu	81.00			
7.	Uttar Pradesh	88.80			
8.	A & N Islands	100.00			
9.	Arunachal Pradesh	90.00			
10.	Chandigarh	93.70			
11.	Delhi	82.69			
12.	Andhra Pradesh		62.54		
13.	Bihar		70.38		
14.	Kerala		60.76		
15.	Madhya Pradesh		72.30		
16.	Manipur		71.70		
17.	Punjab		72.34		
18.	Rajasthan		65.70		
19.	Goa, Daman & Diu		77.20		
20.	Pondicherry		78.73		
21.	Haryana			47.16	
22.	Assam				21.87
23.	Meghalaya				28.00
24.	Nagaland				29.07
25.	Orissa				39.27
26.	Sikkim				22.43
27.	Tripura				39.62
28.	West Bengal				30.75
29.	Mizoram				14.70
30.	Dadra Nagar Haveli				
31.	Lakshdweep				

2.19 It would be seen that the coverage in the following States has been less than 40 per cent:—

(i) Mizoram	14.70%
(ii) Assam	21.87 %
(iii) Sikkim	22.43%
(iv) Meghalaya	28.00%
(v) Nagaland	29.07%
(vi) West Bengal	30.75%
(vii) Tripura	39.62%
(viii) Orissa	39.27%

2.20 Asked to state as to why the implementation of water supply programme in urban areas has been slack in far Eastern States, the Secretary, Ministry of Works and Housing stated in evidence that:—

> "If you take the situation in the Eastern States, the low priority given and the resources which the States have for taking up the schemes in the urban areas, has not caught up with the requirements. That is one of the reasons why we have taken up schemes for the development of small and medium towns also. Generally speaking, in the eastern states, the priority given has been somewhat low. The other factor is that the rate of urban growth from 1971 to 1981 was 159.86 per cent in Sikkim, 68.29 per cent in Orissa and 225.13 per cent in Mizoram."

2.21 The witness also stated that "we have the Mayors' conference and the State Ministers' conference. These issues are taken up there."

Urban Water Supply Schemes during 6th Plan Period

2.22 It has been stated that during the 6th Plan, Priority would be given to the completion of on-going urban water supply schemes, including augmentation of the existing systems in the larger cities. It is expected that about 930 urban water supply augmentation schemes will be completed during this period. In addition, it is proposed that new schemes of water supply will be taken up in about 550 towns.

2.23 Asked to state the role of the Central Government in regard to these schemes and whether they provide financial, technical or physical help to the States the witness stated that "We get involved in the appraisal of some of these projects. No specific monitoring is done. If the States specifically ask for technical assistance, then we give it. There is no Central Sector Scheme for the purpose. Most of the States have well-developed schemes. Some of the newly-created States sometimes ask for assistance. For instance, we processed a scheme in Sikkim. Sometimes they do not have the expertise; so we send experts for the preparation of the project."

2.24 The Ministry was asked to furnish a note indicating the number of schemes completed, number of schemes pending, number of schemes taken up in hand and the shape of financial, technical or other help given.

2.25 They have, in a note, stated that it has not been possible to obtain this information so far. The Ministry of Works and Housing does not have the machinery to monitor urban water supply schemes which are entirely in the State Sector. There is no component of Central assistance in this Sector, unlike the rural water supply sector where grants are provided under the Centrally Sponsored Accelerated Rural Water Supply Programme, to supplement the resources of the State Governments. Accordingly, while the progress in the Rural Water Supply sector is closely monitored by the Ministry of Works & Housing, in the context of the Centre's involvement, similar monitoring is not being done in respect of the urban water supply schemes. No information is accordingly provided by the State Govts. periodically on the number of urban water supply schemes under implementation, those completed, etc. Technical assistance is provided to the State Govts. if a request is made by the latter.

2.26 Insofar as the supply of drinking water to rural area is concerned, upto end of March 1981, only 16.20 crores of the rural population (i.e. 30.94 per cent) is reported to have been covered. Further the detailed State-wise break-up of the population covered furnished to the Committee indicates large imbalances as between different States /Union Territories in regard to the percentage of rural population covered. The coverage of rural population ranges between 7.20* in respect of Uttar Pradesh and 70.28 per cent in the case of Gujarat. Besides Uttar Pradesh, the coverage is very poor in West Bengal (15.79 per cent), Assam (19.90 per cent): Maharashtra (19.19 per cent): Meghalaya (19.6 per cent) and Lakshadweep (8.5

***Subject to recheck by Government.**

per cent). Thus the need to step-up the coverage as a whole and to concentrate on the states where the coverage is very poor has assumed a dimension and urgency which have to be appreciated and concerted steps taken in that direction. .Such serious regional disparities in the basic amenities such as drinking water supply should not persist.

2.27 The Committee would like to draw the attention of the Ministry of Works & Housing to the acute problem of drinking water in the hilly areas and certain other areas of the country highlighted on the floor of the Lok Sabha time and again. They would like the Ministry to undertake, in coordination with the State Governments, special programmes for covering such areas in the shortest possible time.

2.28. The Committee note that in 1980-81 and 1981-82 the coverage of Scheduled Castes population was 12.60 and 14.88 per cent and the Scheduled Tribes population covered was 9.36 and 10.54 per cent respectively.. They have also been informed during evidence that the Ministry of Works and Housing have taken steps to ensure that the needs of S.C./S.T. are being met adequately and are watching the progress through quarterly reports from the States which are to cover information in more details from the State Govts., with regard to the number of villages/hamlets covered under the programme especially those dominantly populated by S.C./S.T. The Committee was assured during evidence that the scheme for providing drinking water supply in SC/ST areas was likely to be completed by 1985. They hope that this assurance would be implemented.

2.28A The Committee would like to emphasise that mere collection of statistics about number of villages covered under the Drinking Water Supply Scheme is not enough. There should be a system of regular inspections and at least testcheck by a joint team of officers of the Ministry of Works & Housing and of the State Governments to see whether the people in the problem villages reported to have been covered, are actually receiving the drinking water and assess the problems.. In this context the Committee would like the Ministry to verify and report to the Committee whether the benefit of the following regional rural water supply schemes has actually reached the population of the villages covered by these schemes:—

(i) Palari Siddhan Regional Rural Water Supply Scheme, Distt. Jodhpur (Raj.).

(ii) Gandhi Vidya Mandir Sardar Sahar Regional Rural Water Supply Scheme, Distt. Churu (Raj.).

(iii) Chandgothi Regional Rural Water Supply Scheme, Distt. Churu (Raj.).

(iv) Shambhugarh Regional Rural Water Supply Scheme, Distt. Bhilwara (Raj.).

2.29 Although overall 75.08 per cent of the urban population has been covered by drinking water supply as on 31 March, 1981, the coverage is very low (less than 50 per cent) in Haryana (47.16 per cent) and the Eastern States of West Bengal (30.75 per cent); Sikkim (22.43 per cent); Assam (21.87 per cent); Meghalaya (28 per cent); Nagaland (20.07 per cent); Mizoram (14.7 per cent); Tripura (39.62 per cent) and Orissa (39.27 per cent). Inadequacy of resources of these States, appears to be the main reason for this situation. At present Central Government has no responsibility in regard to urban water supply in the States. The Committee desire that a centrally sponsored scheme for urban area limited to States where the provision of drinking water is woefully inadequate should be evolved and put through to correct these serious imbalance. Further Central monitoring covering comprehensively the population in rural and urban areas should be done for suggesting corrective steps and providing assistance, technical and otherwise, where necessary.

CHAPTER III

DRINKING WATER SUPPLY PROGRAMME

A. *Norms of per capita availability of drinking water Per Capita water supply in rural areas*

3.1 The Ministry of Works and Housing have stated that details of per capita availability of protected water supply in rural areas is not available. They have, however, pointed out that for rural communities where house-service connections are not contemplated and the supply is through handpumps or central standposts, the rate should not be less than 40* lpcd. Where, house service connections are contemplated, the rate should be at least 70 lpcd.

3.2 It has been further stated that to have the widest coverage with the limited resources available, it has been decided to adopt a 40 litres rate for schemes implemented under the Accelerated Rural Water Supply Programme. The States have been also urged to adopt the same rate for the schemes implemented under the Minimum Needs Programme.

3.3 Considering the size of the rural water supply problem and the limited resources available, the Ministry feel that the question of augmenting the per capita supply in the rural areas can be considered only in the post—Sixth Plan period.

3.4 It was pointed out to the Secretary (Works & Housing) that till now, in planning the Water Supply Schemes, no consideration had been given to the need of water for animals which are an asset not only of a farmer but also of the whole country. He was asked to state whether his Ministry was prepared to fix a quantum of water for the use of animals as well. The Secretary, Works & Housing replied:

> "So far we have not done it.....the requirement is certainly appreciated. There could not be two opinions about it but the point is, basically, the targets we have set before us are for providing certain basic minimum needs."

---

*Lpcd.—litres per capita per day.

Per Capita water supply in urban areas

3.5 It has been stated by the Ministry that the per capita consumption rates in respect of urban population furnished by the States show large variation in the per capita availability of drinking water from 10 litres to 400 litres per day.

3.6 It has been further stated that the following rates per capita per day which are considered the minimum for domestic and non-domestic needs have been prescribed:

(i) for communities with population upto 10,000 : 70 to 100 litres

(ii) for communities with population from 10,000 to 50,000 : 100 to 125 litres

(iii) for communities with population of 50,000 and above : 125 to 200 litres

3.7 According to a memorandum received by the Committee the water supply in urban sector is be-set with many inadequacies such as partial coverage, low per capita supply, inefficient and ill-maintained distribution system, intermittent nature of supply leading to wastage and contamination, unskilled operational treatment of plants, sub-standard quality of supply etc.

3.8 Asked to offer comments on the above observation the Secretary stated that "many of these observations are quite correct. It is well accepted that the danger of contamination is there because if the tap is dry and there is a suction effect, sometimes there is contamination due to that."

3.9 The witness added that they had issued a Manual on the subject for the guidance of States and they were adopting them.

3.10 The Ministry of Works & Housing are not in a position to state the per capita availability of protected drinking water in the rural areas. This the Committee feel is necessary to be computed. State/Union Territory-wise in order to assess the extent of requirement of augmentation of facilities. The Committee hope that the Ministry would build up adequate data base in the context of ensuring a rational policy and programme of provision of facilities in a planned manner.

3.11 The Committee consider that the norm of minimum of 40 litres per capita daily for rural population is too low even for the need of the human beings. Besides, each farmer family has a certain number of animals also which would need water for drinking

and the importance of these animals to the life and health of human beings and especially to the farmers needs no emphasis. The Committee, therefore, recommend that the norm should be suitably raised having regard to the needs of domestic animals.

3.12 The Committee observe wide variation as between States in the per capita availability of drinking water in urban areas ranging from 10 litres to 400 litres daily. The Committee recommend that priority should be given to drinking water supply schemes for urban areas in States where the per capita availability is less than the minimum norm of 70 litres per capita daily.

B. *Problem Villages*

Number of Problem Villages

3.13 The Ministry of Works and Housing have stated that according to a survey conducted upto 1971-72, a total of about 1.52 lakh villages in the country were identified as being without safe and assured sources of drinking water. However, various State Governments later reported that the earlier survey did not adequately represent the magnitude of the problem partly because it was not complete and partly because drought conditions in subsequent years had brought to light fresh areas which were vulnerable to water scarcity. The latest data received from the State Governments/ U.T. administrations show that as on 1st April, 1980 there were about 2.31 lakh villages in the country which needed provision of water supply facilities on a priority basis.

Criteria for determining Problem Villages

3.14 The following criteria have been adopted for categorising villages as problem villages:

1. those which do not have an assured source of drinking water within a reasonable distance of say 1.6 kilometre or within a depth of 15 metres;

2. those where the available water has an excess of salinity, iron, fluoride or other toxic elements;

3. those which are endemic to diseases like cholera, guinea-worm etc.

3.15 Asked to state the basis on which these criteria were fixed and whether these had the approval of the State Governments/ Union Territories the Secretary, (Works & Housing) stated in evidence.

> "About fixing of criteria I may mention that this has been based on the advice of experts. In 1961 it was with the Health Ministry. At that time the criteria had been adopted by the Drinking Water Board. It is based on scientific principles, depth, quality etc."

3.16 In regard to the criterion that "the village does not have an assured source of water within a reasonable distance of say 1.6 km. or within a depth of 15 metres," the Secretary of the Ministry was asked to state whether it was reasonable. He replied "so far as hill areas are concerned, we do accept elevation difference of 100 metres." Questioned about the reasonability of the distance in flat area, he said "in some States we have found that they have taken shorter distance." He however offered:

> "We can review it at the next meeting of the Ministers."

3.17 Reacting to the suggestion that, in view of the fact that several changes have taken place since the initial adoption of the criteria for identifying problem villages, it would be reasonable to change the criteria "from 1.6 km. distance or within a depth of 15 metres" to "0.5 km. distance or within a depth of 10 metres, "the Secretary stated:

> ". . . We will get it reviewed. However, I may submit that so far as the Sixth Plan is concerned, we are committed to certain principles. If we change the number of problem villages, the problem will be again where to find resources to cover the additional villages. The number has been fixed on the basis of certain criteria."

Coverage of Problem Villages

3.18 The Ministry of Works & Housing have stated that under the new 20 Point Programme, efforts will be to cover during the 6th Plan period, all the identified problem villages (2,30,784 as on 1-4-1980) with atleast one source of safe potable water available throughout the year.

3.19 The Ministry have indicated the number of problem villages covered during the period 1977-78 to 1981-82 as follows:

1977-78	12922	1782 habitations
1978-79 .	20920	
1979-80 .	22822	
1980-81 .	25978	
1981-82 .	29837	

Thus the total number of problem villages which remained to be covered during the remaining period of the 6th Five Year Plan is 1749.69.

3.20 In view of the fact that during the first two years of the 6th Five Year Plan period only 55815 problem villages could be covered, the Secretary (Works & Housing) was asked to state whether he thought it would be possible to cover the remaining 1,74,969 problem villages during the remaining 3 years of the Plan period, he stated in evidence:

> "In the current year, we are in the process of reaching the final figures. The thinking at present is around 40,000 ... We placed an additional demand for funds and we are hoping to get it. We have a great responsibility. A mid-term review is being made and the matter is under consideration. We will need more funds and we are planning accordingly. We have sent teams to the States and they have indicated that the States will make efforts to achieve the targets."

3.21 The Ministry of Works and Housing have stated that a series of meeting were held in June, 1982 in the Ministry of Works and Housing with the representatives of the State Governments/ Union Territory Administrations to assess the progress in the implementation of the programme for the supply of drinking water to the problem villages in the first two years of the Sixth Plan and to formulate a phased plan of action to cover the remaining problem villages by 31-3-1985.

3.22 Asked to state what assessment was made, the witness stated that:—

> "The assessment was that in some of the hill States and in the States in the North eastern region there were organisational difficulties and it may be a little difficult to complete the programme in time. In fact we identified 5 or

6 States also . . . The local people are not trained enough. Sometimes we find it difficult to send people on deputation there. There is resistance from the local people."

3.23 The witness added that:

"One factor might be kept in mind that rural water supply, has been given very high priority by different State Governments. To that extent, this programme has to be carried out successfully . . ."

3.24 Asked further to state whether priority could be given to those villages who were in dire need of water supply and were willing to contribute 50 per cent of the expenditure, the other 50 per cent being borne by the State Governments or the Central Government, the Secretary replied "It is a valuable suggestion, we will consider it."

3.25 The Committee are disappointed to find that out of about 2.31 lakh "problem villages" proposed to be covered by drinking water supply programme during the 6th Plan period, only about 96,000 villages are likely to be covered by the end of 1982-83. Looking at the achievements made so far, the Committee fear that the target laid down for the 6th Plan period may not be attained unless the Ministry of Works and Housing the State Governments double up their efforts during the last two years of the Plan period. The Committee trust that the Ministry of Works and Housing and the State Governments would be able to mobilise adequate financial and physical resources to so intensify the programmes as to be able to cover nearly 70,000 villages during each of the remaining two years of the Plan period for attaining the target laid down for the Plan period.

3.26 The Committee note the assurance given to them by the Secretary (Works and Housing) during evidence that his Ministry would consider the question of giving priority in the matter of supply of drinking water to such villages as are in dire need of water supply and are prepared to contribute 50 per cent of the cost of the scheme, the other 50 per cent being borne by the State Government or the Central Government. The Committee would like to be apprised of the result of consideration of this question.

3.27 According to the present criteria, for the purpose of providing drinking water on a priority basis a problem village is one

where there is no assured source of drinking water within a reasonable distance of say 1.6 km. The Committee consider that distance of 1.6 km. to be covered for fetching drinking water could not be regarded as a "reasonable distance." One has to reckon with the hardship faced by the rural womenfolk in carrying water on their head for long distance sporting enormous energy and time and exposing themselves to the risk of variety of ailments. They recommend that all such villages which do not have an assured source of water within a distance of 0.5 km. should be classified as problem villages for the purpose of taking up water supply schemes on a priority basis. All the additional villages coming under the category of 'Problem Villages' so revised should be covered by drinking water supply schemes by the Seventh Plan Period.

3.28 The Committee further recommend that since Central Government have some responsibility in regard to rural water supply, the interse priority of problem villages for covering acute problem villages on emergent basis should be decided by the States in consultation with the Centre.

C. *Minimum Needs Programme*

3.29 The concept of the Minimum Needs Programme (MNP) emerged and crystalised out of the experience of the previous plans that neither growth nor social consumption can be sustained, much less accelerated, without being mutually supportive. The Programme lays down the urgency for providing social services according to nationally accepted norms within a time bound programme. Its allocations are earmarked and it seeks to ensure the neceessary provision of resources. The Programme introduced in the Fifth Five Year Plan is continuing during the Sixth Plan.

3.30 Rural Water Supply is one of the components of the Minimum Needs Programme but not sanitation. The programme is in the State sector. Projects are formulated and implemented by the State Governments. Supplemented by the provision under the Centrally Sponsored Accelerated Rural Water Supply Programme, the objective of the Minimum Needs Programme is to provide safe drinking water to the identified problem villages.

3.31 The MNP outlay for the Fifth Plan period (1974—79) was Rs. 329.27 crores. The corresponding outlay in the Sixth Plan period (1980-85) is Rs. 1444.11 crores. Actual expenditure on the MNP during the period 1977-78 to 1981-82 has been indicated as Rs. 865.506 crores.

D. *Centrally Sponsored Accelerated Rural Water Supply Programme*

3.32 The Centrally Sponsored Accelerated Rural Water Supply Programme (ARP) was initially introduced in the year 1972-73 to supplement the resources of the State Governments in providing drinking water to the identified problem villages. The programme was in operation for 2 years, i.e. 1972-73 and 1973-74, after which it was wound up consequent on the introduction of the Minimum Needs Programme in the Fifth Plan in the State Sector. The Centrally Sponsored Programme was reintroduced in 1977-78 and is continuing. Under this programme, the assistance to the State Governments is in the form of grant-in-aid to supplement their resources under the Minimum Needs Programme.

3.33 The 6th Plan outlay for the ARP is Rs. 600 crores and the utilisation of funds released to States has been indicated by the Ministry as follows:

1980-81 Rs. 87.06 crores+Rs. 15.00 crores for Rigs.

1981-82 Rs. 109.94 crores (funds released. utilisation figures not available).

3.34 Asked to indicate the total expenditure of the Central Government on the programme during the first two years (viz. 1972-73 and 1973-74) of its operation against financial targets, the representative of the Ministry stated in evidence that:

> "In 1972-73, the total expenditure was Rs. 19.10 crores, in 1973-74, it was Rs. 15 crores. We have not been able to lay our hands on any financial targets as such."

3.35 Asked to indicate the overall achievements against targets fixed for the years 1972-73 and 1973-74, the witness stated that "on that no information is available."

3.36 Asked further to state whether any agency of the Central Government verified the physical achievements reported by the State Governments, the witness stated that it was only test checking, and that also after they had organised the CPHEEO that they had been able to do so.

3.37 The witness informed that it was wound up after 1973-74 and reintroduced in 1977-78 on the decision of the National Development Council in this regard.

3.38 Asked to state the reasons for winding up the programme in 1973-74, and reintroducing it later, the witness stated that:—

> "The emphasis was to reduce the number of centrally sponsored schemes. We found that the progress was really not as much as it should be. So we decided to have a supplementary programme, a sort of incentive we gave."

Method of Releasing Funds to States APR

3.39 The Ministry have stated that Grants to the States under the Accelerated Rural Water Supply Programme are released half yearly. The first instalment is released soon after the demands for grants of the Ministry of Works & Housing are voted by Parliament. The second instalment is released later in the year on receipt of utilisation certificates from the State Governments and Union Territory Administrations for the grants released to them in previous financial year.

3.40 The proper utilisation of the money made available to the State and UTs is ensured through utilisation certificates and progress reports. The utilisation certificates indicate that the funds made available have been utilised for the programme. The progress reports indicate the number of villages for which water supply facilities are provided with the funds made available. The physical progress is also test checked by the officers of the Ministry when they visit the States and Union Territories.

3.41 According to the Ministry, their general experience is that the funds released under the Central Programme are utilised by the State Governments. However, there have been occasions when, for want of timely receipt of utilisation certificates from the State Governments/Union Territories, the final release of funds from the Central Programme in particular years was made only towards the close of the financial year, with the result that the State/UTs concerned, could not utilise the funds in the same financial year. States/UTs can, however, carry over the unutilised funds to the next financial year for implementation of projects.

3.42 Asked to state whether the funds can be released in one instalment instead of quarterly or half-yearly, as at present, the representative of the Ministry stated in evidence that, "we will definitely examine it. But if we release it in one instalment and if the utilisation certificate is not received the entire amount for the year will be stopped and instalment may suffer."

3.43 Later in a written information, the Ministry have stated as follows:—

"It is not considered advisable to release the funds to the States in one instalment. Generally, financial prudence requires that the funds released to States/UTs are utilised almost in full before funds are released for the next year. Otherwise, it is likely that funds may remain locked up with a State/UT, though the State/UT is not in a position to utilise the funds, whereas there may be other States/UTs which may be in a position to utilise them. The release of funds is accordingly related to the capacity for utilisation of funds and consequently for achieving physical progress.

Release of funds to the States in one instalment will not secure the above objective. An alternative would be to release the funds in one instalment after the utilisation certificate is received for the funds released in the previous financial year. This would, however, mean that the funds can be released only after September, in view of the fact that utilisation certificate can be provided by the Accountant General only after the accounts are finalised for the previous financial year. This alternative is not considered advisable as the State/UT would have to wait till after September to obtain their funds.

On the other hand, under the present system, the States/UTs get their first instalment at the beginning of the financial year without production of utilisation certificate for the previous financial year. This release enable them to finance the works in progress and to continue to achieve physical progress.

It may also be added that all the States/UTs are now informed at the beginning of the financial year about the total amount of grant they can expect during the financial year. They can accordingly plan for full utilisation of the funds at the beginning of the financial year itself. Further, each State/UT has also been informed of the total allocation under the ARP for the entire 6th Plan period. Even if a State/UT is not in a position to utilise its allocation in a particular year, its allocation for the entire 6th Plan period will not be affected."

3.44 The Committee have, however, been advised by the Ministry that utilisation of funds under the programme is now being viewed by the Ministry from a longer-term perspective to enable the State Governments to plan more effectively and realistically for the utilisation of the funds. With this objective, State Governments have recently been informed of the total allocation under the Central Programme for the VI Plan period as a whole. This, the Ministry point out, would introduce a much needed element of flexibility in the drawal and utilisation of funds by the States/UTs. The allocation of funds for 1982-83 has also been indicated to the State Governments to enable them to plan in advance for their utilisation. It is proposed to provide advance intimation to the States/UTs about the annual allocation of funds during the years 1983-84 and 1984-85 also, as soon as the demands for grants of the Ministry of Works & Housing are approved by Parliament.

3.45 The Centrally Sponsored Accelerated Rural Water Supply Programme (ARP) was introduced for the first time in 1972-73 and after being in operation for a period of two years was wound up in 1973-74 in pursuance of the policy to reduce the number of Centrally sponsored schemes. The Committee note that the initial operation of the programme for two years was not properly planned and monitored. The scheme was re-introduced in 1977-78 because the progress of the water supply schemes under the Minimum Needs Programme was found to be not adequate and it was decided to have a Centrally sponsored supplementary programme by way of "incentive" to the State Governments. The Committee regret that such an important scheme was not only not conceived and put through properly in the initial stages but was also abondoned for 3 years. If only the scheme had been properly planned, monitored and executed uninterruptedly the position in regard to drinking water supply in rural areas would have been far better than what it is today.

3.46 The Committee recommend that the system of release of grant to States under the Accelerated Rural Water Supply Programme should be such as to facilitate orderly progress of water supply programme undertaken by the States. The Committee would like the Ministry of Works & Housing to ascertain the difficulties encountered by the States in the matter of release of grants by the Centre under the Programme and try to simplify and streamline the procedure.

E. *International Drinking Water Supply and Sanitation Decade*

3.47 The United National Conference on Human Settlements (Habitat) held in June, 1976, at Vancouver, (Canada) recommended that safe water supply and hygienic waste disposal should receive priority from Governments and International Agencies with a view to achieve the target of serving all the population by 1990. These objectives were reiterated in the UN Water Conference held at Mar Del Plata, Argentina, in March, 1977 and it was also decided that the decade 1981—90 should be designated as the "International Drinking Water Supply and Sanitation Decade." The Conference also wished closer co-operation among the organisations and increased technical and financial co-operation from external, bilateral and multi-lateral agencies, for attaining the global goal of access to safe water supply and adequate sanitation by the year 1990.

3.48 The 31st UN General Assembly which met in late 1977 approved the recommendations of the Water Conference. The deliberations of the International Conference on Primary Health Care held at Alma Ata, USSR in September 1978 emphasised that water supply and sanitary facilities must be provided to the people in the Third World, since 80 per cent of the sickness and disease is attributable to contaminated water.

3.49 India was represented in all these Conferences and was a signatory to the Resolutions and had pledged its full support for the International Decade Programme.

3.50 For the international Drinking Water Supply and Sanitation Decade, which is being observed in India from 1-4-1981 to 31-3-1991, the following physical targets have been laid down:—

(i) Urban Water Supply	100% of the population to be covered
(ii) Rural Water Supply.	100% of the population to be covered.
(iii) Rural Sanitation	25% of the rural population to be covered with low cost water seal latrines.
(iv) Urban Santiation	100% covereage of the population of Class I cities with sewerage and sewage treatment facilities and low cost sanitation methods in respect of other towns. Overall coverage of urban population by all methods of sanitation facilities is expected to be 80% of the urban population

F. *Funds for Drinking Water Supply and Sanitation Programme*
Inadequacy of Funds

3.51 The working Group on the Programmes and Manpower set up by the Apex Committee on International Drinking Water Supply and Sanitation Decade (1981—90) in its Report observed that during the 6th Plan population to be benefitted is estimated at about 4.17 crores by urban water supply, about 12.8 crores by rural water supply, about 2.48 crores of urban sanitation and about 0.54 crores of rural sanitation facilities. The Group further observed that these physical targets are expected to be achieved with a capital of about Rs. 1126 crores and Rs. 1785 crores for urban and rural water supply respectively and Rs. 540 crores and Rs. 28 crores for urban and rural sanitation. At the end of the 6th Plan period, the overall targets expected to be achieved will be 93 per cent in the urban and 52 per cent in rural water supply respectively and 39.3 percent in urban sanitation and a meagre 1.5 per cent in rural sanitation. In order to fulfil the remaining commitments of the Decade Programme after the 6th Plan, the funds required will be Rs. 2026 crores for urban water supply, Rs. 5161 crores for rural water supply Rs. 3221 crores for urban sanitation and Rs. 719 crores for rural Sanitation.

3.52 The Ministry have stated that during the year 1980-81, approved outlay for the sector in the State plans was Rs. 427.065 crores against which the actual expenditure was Rs. 424.145 crores. As regards, the year 1981-82, the approved outlay was Rs. 534.81 crores. The actual expenditure figures are not yet available. For the year 1981-83, the approved outlay is Rs. 565.67 crores.

3.53 The Committee enquired that in view of the gigantic task of water supply, and the inadequacy of funds, how would it be possible for them to achieve the targets of the plan for providing drinking water supply and sanitation, the representative of the Ministry stated in evidence that—

> "We appreciate the concern of the Hon. Member with regard to the inadequacy of resources for this gigantic task of water supply for the urban and rual population. We have projected to the planning Commission, over and above the funds that are available Rs. 2044.11 crores for this limited programme of providing one source at least for each problem village, a requirement of Rs. 1,500 crores. This is under consideration and this is the magnitude of the resource problem as far as our limited programme in the Sixth Five Year Plan is concerned."

LTC loans for financing water supply Sewerage Schemes

3.54 Life Insurance Corporation of India is the sole Financial institution in the country extending financial assistance for develop-

ment of water supply and sewerage sector with the objective of improving the public health standards by providing safe drinking water and sanitation facilities both in urban and rural areas.

3.55 L.I.C. provides loans upto a maximum of two-third of the project cost for the first one crore of the cost of the scheme, 50 per cent for the next one crore, 40 per cent for the next three crores and 25 per cent of the cost in excess of five crores. LIC finance water supply sewerage schemes in a phased manner. After the loan raised in the past and the proportionate share of State Govts. and/or Municipalities is spent and corresponding physical progress is achieved, L.I.C. sanction further loan for the scheme. Thus L.I.C. loan is made available on year-to-year basis provided the schemes progress well. Under this broad pattern of assistance the LIC has made substantial funds available for the water supply and sanitation sector.

3.56 Making a beginning in the year 1961-62, upto 1981-82, they have advanced loans aggregating Rs. 418.65 crores to various local bodies/statutory water supply and sewerage Boards for financing their water supply and sewerage schemes in 19 States and in the union territory of Chandigarh. Though the total loan of Rs. 85.53 crores has been sanctioned by L.I.C. during 1982-83, the total likely disbursement or the year would be of the order of Rs. 78.47 crores. As on 31st March, 1982 LIC have advanced loan of Rs. 45.89 crores for rural piped water supply schemes in 4 States *viz.* Kerala, Maharashtra, Gujarat and Andhra Pradesh. In the year 1975-76, we stated participating jointly with International Development Association (IDA) of the World Bank for financing the water supply and sewerage project costing Rs. 60 crores in the State of U.P. From 1978-79 L.I.C. are also co-financing with IDA the water supply and sewerage project costing Rs. 66 crores in the State of Punjab.

3.57 The Ministry of Works and Housing have stated that Life Insurance Corporation of India have finalised loans for financing Water Supply and Sewerage Schemes in various States for the financial year 1982-83, (including loan Rs. 10.17 crores sanctioned in earlier years) as the loans sanctioned for projects costing more than Rs. 5 crores are released in instalments in the agreed proportion over a period of 3/4 years depending on the satisfactory progress of the Projects.

3.58 As for the schemes pending with the L.I.C. for consideration. it may be stated that two water supply projects, Raniganj and

Bellary, in the States of West Bengal and Karnataka respectively, are yet to be finalised for want of certain clarifications.

3.59 The Working Group on Financial Resources set up by the Apex Body under the Decade Programme was of the view that the provision of funds by the LIC should be stepped up by 15—20 per cent every year by internal re-allocation and also taking into account the likely increase in its business and availability of larger investible resources. It had recommended that in view of the high priority and international commitments relating to the Decade Programme, the LIC may be persuaded to earmark at least 8 per cent of their investible funds for the water supply and sanitation sector in comparison to the current amount of 6 to 7 per cent.

3.60 On the question of available funds being supplemented by short-term loans through institutional finance to be operated by appropriate agencies, the representative of the Ministry of Works and Housing stated in evidence that:—

> "Our Ministry has been very keen to see that non-plan fund or fund outside the plan is also made available for sectors like water suply, sanitation, and housing and some other subjects.
>
> As far as LIC funds are concerned, they have a formula by which their investible surplus funds are set aside for social purposes; and this is handled by planning Commission in consultation with the administrative Ministry; and among the sectors whch they are financing are water supply, sanitation and housing.
>
> As far as their investible funds are concerned, about 6-7 per cent they are making available for water supply. In the year 1981-82, we took up this matter with them and they have recently agreed to raise this to 8 per cent. The projects are submitted directly to the LIC by the local bodies. We are given to understand that the LIC fund is also counted as a plan fund."

3.61 Supplementing him, the Adviser in the Ministry of Works and Housing stated:—

> "LIC as well as the World Bank are the leading agencies. Their main aim is to take the return. Therefore, they go into the financial viability of schemes in detail. Rural

schemes are grant schemes. Therefore, they are normally not accepted by the LIC."

3.62 The Committee note that for achieving the targets of coverage of population under the Drinking Water Supply and Sanitation Programme laid down for the Sixth Five Year Plan, the Ministry have, apart from the allocation of Rs. 2044.11 crores, suggested .. an additional allocation of Rs. 1500 crores for this purpose. This, it is stated, is under the consideration of the Planning Commission. The Committee hope that in view of the magnitude and urgency of the Drinking Water Supply and Sanitation problem in the country, necessary funds would be made available.

3.63 The Life Insurance Corporation has also been providing loans to the local bodies/statutory water supply and sewerage Boards in the States for financing water supply and sewerage schemes. Currently the contribution of LIC for this purpose is to the extent of 6 to 7 per cent of the corporations investible funds. This has been counted as plan fund. The LIC is stated to have agreed to step it up to 8 per cent. The Committee desire that the plan allocation should be augmented to the extent of this increase in the contribution of LIC.

G. Water Pollution and Water borne diseases

Water Pollution

3.64 With the massive drinking water supply programme in hand, the problem of water contamination assumes considerable importance. Contamination can be bilogical or chemical. It can be at the source or in the distribution system .

3.65 Asked to state whether Government have taken any measures requiring the industries and local authorities to set up waste treatment facilities, the Chairman, Central Board for the Prevention and Control of Water Pollution, stated in evidence that—

> "In regard to the problem of drinking water pollution, the major cause is because the source is getting polluted. The major causes are of two types: one is from human settlements and the other is from the industries.
>
> In this regard, the State Pollution Control Board along with the Central Pollution Control Board are controlling the industries fairly progressively and they have come out with the statistics as to how many industries are already controlled and things like that. Now our major difficulty is how to control the sewerage outlets which are coming from the human settlements".

3.66 The witness informed the Committee that "on the industrial front, it is our belief that we will be able to control them with no difficulty, but the major contribution to the water pollution is from the human settlements in towns and cities and we have no possible means to control it unless necessary financial resources are mobilised".

3.67 In regard to the problem of water contamination caused by insanitation and human waste, the witness stated:

> "In this regard our difficulty is this that the Act (Water Pollution Control Act) which has been in force gives us necessary authority whereby we can always prosecute any Municipality or the Local Body. However, prosecution alone will not bring any solution to the problem. Local Bodies do not have adequate financial resources to provide sewage treatment plant".

3.68 As regard Water pollution caused by industrial waste the Ministry of Works and Housing have stated that out of about 2700 large and medium industries, pollutionally relevant industries may number 1700 (excluding the industries in the States of Maharashtra, Tamil Nadu, Orissa and five North/East Hill States to which the Water Pollution Control Act is not applicable).

3.69 It has also been stated that as per the available information, 337 industries, large and medium, have commissioned industrial waste-water treatment plants and are operating these plants, 176 industrial effluent treatment plants are under construction and 192 units are in the planning stages.

3.70 The Chairman, Central Board for the Prevention and Control of Water Pollution also informed the Committee in evidence that—

> "We made a total assessment of the medium and large industries in the country and that number amounts to 2700 precisely. In this assessment, we could not cover Maharashtra, Tamil Nadu, and Orissa and the five North Eastern States. This is because they were not included within the Central Act."
>
> But our rough assessment is that including these States the number would be nearly 3500.
>
> Out of 2700 industries, 1700 are really relevant to water pollution. Out of these 1700, 705 industrial units are installed with treatment plants, and this progress has

taken place during the last 4 years, although the Act is effective since 1974. It is our belief that it will take us another 2-3 Five Year Plans to complete the water Pollution Control measures in regard to medium and large industries".

3.71 The witness also added that "we have enough provisions and necessary administrative powers and thereby no new industries are coming up without putting pollution control measures.

Water-borne Diseases

3.72 Diseases which result from drinking water containing disease germs are called water-borne diseases. The principal diseases are (i) Viral Hepatitis (2) Poliomyletitis (3) Diarrhoeal Disease and (4) Guinea-worm.

3.73 Ministry of Health and Family Welfare have stated that the following steps are being taken to check water-brone diseases:—

(1) *Viral Hepatitis*

A National Committee on Surveillance of Viral Hepatitis has been constituted to assess the magnitude of the problem, to make diagnostic facilities available and to suggest control measures. The first meeting of this Committee was held on 7th June, 1982. 5 National Reference Centres for Viral Hepatitis have been identified namely PGI, Chandigarh, All India Institute of Medical Sciences, New Delhi, NICD, New Delhi, KIV, Pune, and Haffikine Institutes, Bombay.

(2) *Poliomy-letitis*

This is included as one of the diseases in the expanded programme of immunisation for which regular immunisation is being provided to prevent children from getting. Poliomy-letitis.

(3) *Diarrhoeal Diseases*

As regard, Cholera, Gastroenteritis and other diarrhoeal disease; a National Diarrhoeal Disease Control Programme has ben approved by the Government. The short term objective is to reduce the mortality from diarrhoeal disease resulting due to dehydration. Dehydration is a common feature of all diarrhoeal diseases and can be effectively countered by the use of Oral Rehydration Salt

Packets. These Oral Rehydration Salt (ORS) packets are being supplied to the Primary Health Centres, to the ANMS and to village Health Guides in the field for making them easily available to the people in need.

Health Education material for the use of health workers in preparing Oral Rehydration solution and for educating the mothers in the proper use thereof is also being distributed in different languages to the different States and Union Territories.

A regular training programme in terms of national seminars has also been undertaken. So far 33 seminars have been conducted in which more than 1600 clinicians and other medical personnel have been trained in respect of Oral Rehydration Therapy.

(4) *Guinea Worm Eradication*

The Government of India have decided to implement a scheme for eradication of the Guinea Worm with the objective of eradicating the disease on the time-bound basis. The following activities will be taken up under the programme:—

(1) Periodic delimitation of the problem by undertaking case search operation twice a year in all the 78 endemic districts.

(2) Provision of safe water sources in all the affected villages.

(3) Chemical treatment of unsafe water sources.

(4) Personal phophylaxis by way of health education to make people aware about the unsafe nature of the existing water sources and to take necessary precautions.

(5) Suitable training courses are to be organised in imparting training to the District level staff.

3.74 Enquired whether it would not be desirable to give publicity over T.V., Radio, through Newspapers and by display of sign Boards etc. about the gravity of the problem and the measures taken, the Secretary (Health) stated in evidence that "this is normally done by the Ministry which is concerned with the (water) supply as it is. Of course we had a major programme of health education which we are further intensifying. We have introduced on TV and Radio a serial which comes twice or thrice a week. The name of that serial is "YOUR HEALTH". In this serial we are

projecting family planning messages. But in regard to specific water supply matter it is the responsibilty of the Ministry to project on the TV and Radio to tell the public that these measures are taken."

3.75 Any drinking water supply programme must ensure that the water made available for drinking purposes is uncontaminated and safe for the health of the local populace. Drinking water supply schemes in the urban areas generally depend upon river water or water stored in natural reservoir or tanks, which is distributed through a net work of pipelines. In the rural areas drinking water is taken out of natural reservoirs where rain water is stored or wells or hand pumps. Whether the water is underground or overground (in rivers or reservois), it is susceptible to contamination by human waste or industrial waste. Contamination of water by non-effective disposal of human waste is a serious problem over which at present there is no control. The local bodies which are responsible for sanitation and human waste disposal do not have adequate funds to do a thorough job of it. Unless water supply and waste disposal are viewed as parts of an integrated programme, safe drinking water supply cannot be ensured. The Committee would, therefore, suggest that this aspect should be seriously considered by the Ministry and appropriate action initiated to have coordinated implementation of the schemes all over the country.

3.76 As regards the problem of Drinking water Pollution caused by industrial waste, the Committee note that, although the Water Pollution Control Act was brought in force in 1974, so far only 337 industries (out of a total of 1700 pollutionally relevant industries) have commissioned Industrial Waste Water Treatment Plants and another 368 are in the process of doing so. This is a highly unsatisfactory progress specially in view of the fact that adequate powers are available under the Water Pollution Control Act to compel the pollutionary relevant industries to put up industrial waste water treatment plants. It is a sad reflection on the performance of the Central Board for Prevention and Control of Water Pollution. The Committee would like the Board to be more energetic in securing compliance with the provisions of the Act. The Committee also desire that a survey be made of all the pollutionary relevant industries which are reported to have put up industrial waste water treatment plants with a view to find out whether these plants are actually in operation. The Committee would expect a report to be furnished to them on the findings of the Survey in six months time.

3.77 The Committee find that the Water Pollution Control Act, 1974 does not cover the States of Maharashtra, Tamil Nadu, Orissa and five North-Eastern Hill states. Thus, areas of large concentration of industries comprised in these States remain excluded from the purview of the Act. The Committee are unaware as to how the problem of water pollution by industrial effluents coming out of industries in these States is to be tackled. The Committee would like the Ministry of Works & Housing to emphasise on these State Governments the importance and need of action on their part to compel the relevant pollutionary industries within the State to set up effluent treatment plant as soon as possible.

3.78 Water contamination could also be due to defective or worn out water supply pipes in the distribution system. The Committee would therefore like the Ministry of Works & Housing to enjoin upon the State Governments the need for a periodical inspection of water supply pipelines and replacement of pipes which have outlived their lives already. In future only quality pipes should be used so that even if cost goes up, the risk of their deterioration causing water pollution is minimised.

3.79 The Committee consider that it should be the responsibility of the Ministry of Health to give wide publicity to the disease control measures being taken by that Ministry and also to educate the people in regard to preventive hygiene, detection and immediate help to patients through the production of and distribution of publicity material, advertisements in the Press and TV/Radio features.

3.80 In fact having regard to the nexus between health and safe drinking water supply the Committee feel that the responsibility for providing Drinking water and sanitation facilities should be that of the Departments dealing with Public Health in the States and Union Territories and these should be coordinated and maintained by the Ministry of Health at the Centre. The Committee hope that action will be initiated in this regard in consultation with the States.

CHAPTER IV

MATERIAL PLANNING AND PROCUREMENT

A. *Material Planning and Procurement*

4.1 The Conference of Chief Engineers on Planning for the decade Programme recommended that:—

> "Wherever possible, the locally available materials may be used to great advantage coupled with the locally prevalent technology. Where materials are to be obtained from elsewhere, advance planning may be done for the requirement of such materials by each State. A Cell may be constituted in the Ministry of Works & Housing with the following tasks:—
>
> (i) Consolidating the material requirements of all the states;
>
> (ii) Liaising with relevant Department of Government of India to increase the availability of the materials to the sector by helping the Indian manufacturers or by imports, if necessary."

4.2 Asked to state the action taken or proposed to be taken on the above recommendation/suggestion made by the Chief Engineers on Planning for Decade Programme the Secretary, Ministry of Works and Housing stated in evidence that "so far as the cell is concerned, we have not set up a cell but we have earmarked a Deputy Adviser to look after this and to consolidate the requirements of the States."

4.3 With regard to the use of locally available materials the Ministry has stated that "a detailed assessment of the various materials required for water supply and sanitation programmes has also been made by the Ministry of Works and Housing to identify possible problem areas and evolve solutions in time."

4.4 The problem of shortage of steel was taken up by the Ministry of Works & Housing with the authorities concerned and the position of supply of steel is stated to have since improved considerably. State Governments have also been requested to use PVC pipes as an alternate material from the cost angle.

4.5 As regards cement, it has been stated that "the matter was considered by the Committee of Secretaries and there is a proposal to earmark the cement required for water supply and sanitation projects. The Ministry of Industrial Development has been requested to take further action in this regard." The Secretary Ministry of Works and Housing stated in evidence that "in the matter of cement, we have agreed that from now on 3 lakh tonnes of cement per annum should be earmarked."

4.6 The Ministry have, in a subsequent written note, informed the Committee that earmarking of cement has been commenced by the Cement Controller from the 4th quarter of 1982. The quarterly allocation for water supply and sanitation for all States/U.Ts is 75,000 tonnes. However, in actual practice, water supply schemes have been experiencing difficulty in obtaining smaller diameter CI pipes. This problem was traced to constraints in the availability of raw materials (pig iron and coke) by the CI pipe Industry. The Ministry of Industry have informed the Ministry of Works and Housing that consequent on reduction of customs duty on pig iron and canalisation of the same through Steel Authority of India Ltd., the availability of pig iron has improved. The position of availability of CI pipes is, therefore, expected to improve, gradually.

Use of Stoneware Pipes

4.7 Pursuant to a representation received by the Committee for the use of stone-ware pipes, instead of cast iron and concrete pipes; in the Drinking Water Supply and Sanitation, schemes, the Ministry of Works and Housing were requested to furnish a note on the advantages|disadvantages of the use of stone-ware pipes instead of the cast iron or concrete pipes. The Ministry have, in response, furnished the following note:—

> "Factors influencing the selection of pipe material for water supply and sewer constructions are flow characteristics, availability in the sizes required including fittings and connections, availability and ease of handling and installation, watertightness and simplicity of assembly, physical strength, resistance to chemicals ingredients etc., resistence to scour, durability and cost including handling and installation. Not a single factor decides the suitability of pipe material. Another very important factor to be considered before deciding the pipe material for sewers is loads on conduits due to backfill and trench condition. In fact, in most of the cases the size of the pipe is decided based on the flow to be carried whereas the type of pipe

material is decided based on local conditions and load factors. The pipe cost is of the factors in deciding the material to be adopted but, in any case, generally the cheapest material looking to all other factors mentioned above, is adopted.

Cast iron popes in sizes ranging from 150 mm to 750 mm in dia. are used for pressure sewers, sewer above ground surface, submerged outfalls, piping in sewage treatment plants and occasionally on gravity sewers where absolutely water tight joints are essential or where special consideration require their use. The advantages of cast iron pipes are long laying lengths (generally 3.66 m to 4.00 m) with tight joints, ability when properly designed to withstand relatively high internal pressures and external loads and corrosion resistance in most natural soils.

Concrete pipes may be manufactured to any reasonable strength required by varying the wall thickness and the percentage of reinforcement and shape of the reinforcing cage. A number of jointing methods are available depending on the tightness required and the operating pressure within the sewer line. The advantages of concrete pipes are the relative ease with which the required strength may be provided, feasibility of adopting a wide range of pipe sizes and the rapidity with which the trench may be opened and backfilled. However, these pipes are subject to corrosion for which protective coatings and linings are provided.

Transportation of conduits from place of manufacture and to the side of use involves a lot of expenditure and if the material is breakable, it creates more problem. In this respect stoneware pipes are at the greatest disadvantage. In respect of concrete pipes, special advantage is that it can be manufactured near the place of work.

Looking to the limited availability of pog iron for the manufacture of cast iron pipes, the Ministry has often requested the State Governments to make use of other materials such as PVC, HDPE, Asbestos Cement Pressure Pipes instead of Cast Iron pipes. At present, alternate pipe materials are in use unless no cheaper material is available.

The use of stoneware pipes will be restricted in use because of its brittleness and incapable of withstanding pressures by pipes as well as joints to "Sewerage System". The water supply system always needs presssure resisting pipes. The use of stoneware pipes is generally limited to smaller sizes only, that too for sewerage schemes.

4.8 The Ministry of Works and Housing have the nodal responsibility for the successful implementation of the Drinking Water Supply and Sanitation Programme according to the targets laid down. The Committee, therefore, expect that the Ministry would, in coordination with the other Ministries concerned, arrange for all the materials e. g. Steel, Cement, G. I. Pipes etc. being made available to the State Governments according to their assessed requirements for executing the programme.

4.9 In view of the shortage of Pig Iron and Cement and also of the fact that Stoneware pipes are cheaper, the Committee would suggest that in the Drinking Water Supply and Sanitation Programme, attempt may be made to use, wherever possible without compromising on quality of the pipeline, Stoneware pipes instead of C.I. pipes or concrete pipes.

B. Availability and distribution of Rigs

4.10 The Ministry has informed the Committee that the UNICEF is collaborating with the Govvernment of India mainly in the supply of drilling rigs (with accessories and spares) to tap ground water for the rural drinking water supply programmes. So far, about 180 sophisticated drilling rigs have been received from the UNICEF and distributed to the various States. These rigs are mainly for use in the hard rock regions of the Country. A few rigs are, however, for use in the boulder regions of the Himalayan Plateau. With the help of these rigs, about 60,000 bores have been drilled benefitting approximately 38,000 villages. All these rigs have been supplied as gift by the UNICEF.

4.11 The representative of the Ministry of Works and Housing, however, during evidence informed the Committee that so far 208 rigs had been received by them including 196 from the UNICEF of the value of 50.32 million dollars.

4.12 Asked to state about the efficiency of the imported rigs in the field as against that of indigenous rigs, the witness replied—

"Our simple rigs could go upto a certain depth only. In certain geological formations we require rigs to go much deeper. Hard rock formulations are there. Rotary rigs are only suitable for alluvial soil. There are very hard rocks. Below that these are strong boulders. This has got to be drilled and so special type of rigs are needed . . . All the imported rigs are heavy duty and they can go deep down upto 1000 ft. Normally our rigs go upto 200 or 300 ft. The imported rigs are definitely superior. M|s Larsen Tubro and Company manufactures rotary rigs in our country. It will go upto 1000 ft. deep. But it will go only in the alluvial soil."

Distribution of rigs

4.10 Statewise distribution of import and indigenously procured rigs has been indicated as follows:—

Rigs made available by Government of India (GOI) brought assistance in 1979-80

S. No.	State	UNICEF	SIDA	Australian assistance	Purchased by GOI through		Total	Rigs purchased by States on their own	Grand Total
					UNICEF	INDIGENOUS			
1	2	3	4	5	6	7	8	9	10
	Hard rock areas								
1	Andhra Pradesh	32	..		..	..	32	41	73
2	Bihar	14	1	..	1	29	45	37	82
3	Gujarat	14	..	..	..	..	14	9	23
4	Karnataka	16	..	..	..	..	16	25	41
5	Madhya Pradesh	34	2	..	1	20	57	76	133
6	Maharashtra	20	..	..	..	..	20	57	77
7	Orissa	9	2	..	1	4	16	15	31
8	Rajasthan	12	2	2	1	20	37	42	79
9	Tamil Nadu	20	..	..	..	..	20	41	61
10	Uttar Pradesh	5	1	..	..	10	16	16	32
11	West Bengal	6	2	..	1	15	24	25	49
		182	10	2	5	98	297	384	681

1	2	3	4	5	6	7	8	9	00
	Non-hard rock areas								
12	Haryana . .	2				....	2		
13	Himachal Pradesh .	2					2		
14	Jammu & Kashmir . .	2	..				2		
15	Kerala	2	..				2		
16	Manipur . .	1				..	1		
17	Meghalaya . .	1			..	..	1		
18	Punjab . . .	2	..	..	..	..	2		
19	Assam .	2	..	..	..	..	2		
		14					311		695

4.14 Asked to indicate the criterion for distribution of rigs, the Ministry have in a written note stated that during the year 1980-81, when certain States were affected by drought, the Ministry of Works and Housing founded the procurement of indigenous rigs through DGS&D and distributed them in drought-affected States. The distribution of imported rigs is based on the type of geology where the rigs could be employed, the problem to be tackled, the manpower available with the State and other relevant technical factors.

4.15 During evidence, the representative of the Ministry was asked to state the extent of utilisation of the rigs. The Adviser in the Ministry stated:—

> "We have prescribed some proformas to collect the date about the performance of the rigs. Rig-wise they have to give us information as to how many drills they have bored every month. Sometimes there is delay and we follow up. According to the norms fixed, every rig should bore 70 wells per year. Sometimes there are problems also. They work normally one shift and the overall performance has been 60 per cent. During drought season, we recommend for 2 shifts or even 3 shifts also."

4.16 Replying to the question from the Committee whether the Ministry was satisfied with their performance the representative of the Ministry stated:—

> "It is a fact that we had prescribed a quarterly report in order to maintain a watch and monitor the functioning of the rigs. It is also a fact that the reports have not been coming on regular basis. We have now decided to improve the system so that we have full monitoring of the rigs. It is also a fact that they have not been used to their full capacity because of a number of difficulties which the States face. The problem of spare parts is there, they work in one shift, they have to move from village to village etc.

4.17 Asked to state how the situation could be improved, the Adviser in the Ministry stated:—

> "We are requesting State Governments to draw up plans in the beginning of the year, about where to keep the rigs, and how to move them from place to place, with the help of maps. But there is always some slackening somewhere."

In a subsequent written note, the Ministry have stated that the capacity of utilisation of the rigs depended on many factors, such as geological conditions, depth to be drilled, moveability of the rig in the villages, continued supply of spare parts, availability of fuel, lubricants, working season, the continued presence of trained crew along with rig etc. According to the Ministry while it is very difficult to judge the full utilisation only by the number of wells drilled, yet necessary support to the State Governments who are operating these rigs, in the form of continued supply of spare parts providing necessary training facilities etc. are made available by Government of India/UNICEF. By and large, the state Government are operating these rigs to their capacity within the above limitatons and thus avoid keeping the rigs idle.

4.18 In the case of rigs made available to the States by this Ministry through UNICEF assistance, Plans of Action are signed between Government of India, State Governments and UNICEF for the optimum utilisation of the rigs. The Plan of Action indicates the area of deployment of the rigs, the commitment of the State Governments for their use etc. UNICEF helps in developing the required trained manpower for the operation of the rigs by the States and supply of spare parts required continuously. The experts (Master Drillers) from UNICEF regularly visit the States and attend to operational problems of the rigs. Any under utilisation of rigs capacity is always brought to the notice of the States to take necessary action. For the rigs made available by UNICEF to the States, the manufacturers periodically visit the rigs on a "service contract" programme, to attend the operational/maintenance problems. Supports such as Unit Exchange System for certain major components like hammers, motors etc. and adequate stocking of spare parts at Bombay for supplying the same at the required time to the user, are well programmed by UNICEF and this Ministry for proper operation of the rigs by the States.

4.19 The Ministry in collaboration, with UNICEF, have prescribed proforma for collecting data from the States on utilisation of these rigs.

4.20 The Committee fail to understand the basis on which the drilling rigs received from UNICEF as gift have been distributed among the various States. They note that among the States having hard rock areas, while Uttar Pradesh has been allocated 5 drilling rigs and West Bengal 6 drilling rigs, the States of Andhra Pradesh, Madhya Pradesh and Tamil Nadu have been alloted as many as 32, 34 nd 20 rigs respectively. The Committee wonder whether it is possible to correct this imbalance in the matter of distribution of

imported drilling rigs at this stage. If it is possible, steps should be taken to correct the situation to the extent possible.

4.21 The Committee are constrained to observe that the utilisation of the drilling rigs has been not more than 60 per cent. Although, various reasons have been adduced for this under-utilisation, the fact remains that the Ministry of Works and Housing have not been getting regular feed-back in regard to the operation of the rigs which were financed out of Central Funds or which were received as gifts from abroad. Now that the Ministry have decided to improve the system for monitoring of the performance of these rigs the Committee hope that it should be possible for the Ministry to ensure optimum utilisation of the rigs, by making concerted efforts to remove the handicaps which come in the way of their utilisation. The Committee would like to be apprised of the results of monitoring during the next six months alongwith a statement showing, State-wise, the percentage of utilisation of drilling rigs.

C. *Handpump—Mark II*

4.22 The Ministry of Works and Housing have stated that with the collaboration of UNICEF, WHO, State Governments, Mechanical Engineering Research and Development Organisation (MERADO) and M/s. Richardson and Cruddas (a Government of India Undertaking), a more reliable Handpump, named India Mark II, has been successfully developed and put into operation in various States to draw water from the tube wells drilled. It is stated that it is a sturdy deep well hand-purp which functions efficiently and requires far less maintenance than the pumps used earlier.

4.23 It has also been stated that adequate capacity has also been created for the manufacture of these handpumps in the public as well as in the private sector. An Indian Standard Specification has also ben brought out to control the quality of these pumps.

4.24 Enquired whether adequate publicity has been given about the quality and availability of these Hand-pumps and the arrangements made for their maintenance, the Secretary, Ministry of Works and Housing stated in evidence that: —

> "That newly developed pumps have been popular not only in India but we are exporting them also. So far as the State Governments are concerned we have given publicity through different media, through our meetings. Mark II hand pumps are very popular and useful."

Operation and Maintenance of Hand-pumps

4.25 As regards maintenance of these Hand-Pumps which have been installed, it has been stated by the Ministry in a written note that a three tier system for efficient operation and maintenance of these handpumps has also been developed. The system was initially introduced in Tamil Nadu successfully and is now being progressively adopted by other State Governments. Under this system, there is a caretaker at the village level, a mechanic at the block level to attend to various kinds of operation and maintenance of the hand-pumps. This system has been commended to the different State Governments for adoption and implementation.

4.26 The Conference of State Secretaries, Chief Engineers and Heads of implementing agencies on the International Drinking Water Supply and Sanitation Decade (1981—90) held in New Delhi on the 3rd February, 1982 *interalia* recommended that the three-tier maintenance system evolved with the assistance of the UNICEF for maintenance of handpumps in rural areas may be adopted by all states and union territories. The local people may particularly be involved in the operation and maintenance of rural water supply system."

4.27 The representative of the Ministry informed the Committee during evidence about the working of the maintenance system in Tamil Nadu as follows:—

> "It has been successfully adopted in Tamil Nadu. Under the system, at the village level there will be a care-taker who has some skill. He will be completely honorary or some honorarium will be paid. The idea is that the post-ground maintenance of the handpump is simple; the caretaker can open it, change the washer or repair it.
>
> Under the UNICEF programme we have trained as many as 10,000 to begin with, how to manage small repairs. If he cannot manage it, there is a system under which he sends a post-card addressed to the next level, which is the block level, where there is a mechanic, who is supposed to look after a certain number of hand-pumps. The moment he gets a report, he goes there and attends to the complaints. The third level is at the district, where there is an Assistant Engineer with supporting staff with a mobile unit, which attends to major repairs where the pipe under the ground has to be removed. In Tamil Nadu it has worked extremely well.

The witness added that: —

> "Each State has got its own view on the subject, whether it should be departmental right upto the caretaker or whether the lowest level should be entrusted to the panchayat or whether it should be a combination of both. Two or three different types have been tried."

4.28 In response to the enquiry from the Committee as to the arrangements for training of mechanics and technical personnel for maintenance of these pumps, the Ministry have stated that in collaboration with the UNICEF, training of caretakers, mechanics etc. is being undertaken. The training covers aspects such as improved installation, use of maintenance tools and platform shutterings. The village caretakers are trained for simple repair work such as tightening of nuts, bolts and oiling the moveable parts. The caretakers are also taught the use of post-cards for conveying information to the block level mechanic. This training programme through UNICEF is only intended to be a catalyst for a larger programme to be taken up by the State Governments to meet their requirements of manpower in relation to the handpumps available. While no state-wise information is available regarding the number of people trained, about 10 thousand caretakers and 2500 mechanics are estimated to have been trained through the UNICEF programme.

4.29 The Committee asked as to the number of hand-pumps checked by the officers of the Ministry on their on-the-spot verification and how many of them were found not functioning because of non-maintenance or manufacturing defects in pumps, the Secretary, Ministry of Works and Housing replied in evidence that percentage check was not being done by them.

4.30 The Adviser Ministry of Works and Housing informed the Committee during evidence that when they went on tour they collected all sorts of information and very limited check was done on the field because it was not possible to check all the schemes.

The witness added that:—

> "Wherever these pumps are handed over to the local bodies, it is our experience that they are never managed because they do have neither the funds nor the manpower to operate them."

Non-functioning of Handpumps

4.31 Asked to state whether the non-functioning of the hand pumps was due to lack of maintenance or due to mal-practices in installation like faulty boring, the Ministry have stated:—

> "No information on hand-pumps lying idle, and the reasons therefor, is prescribed as there is no machinery in the Ministry of Works and Housing to monitor this information effectively."

4.32 The Ministry have further stated that the question of their efficient operation and maintenance is entirely the responsibility of the State Governments.

Charges for installation of Handpumps

4.33 The Committee observed that quite a number of schemes for installation of hand-pumps had been a total failure on account of corruption. It is learnt that the rates charged by contractors for digging and installation of hand-pumps had been on a very high side; the digging had been very low, whereas the charges were for deep digging.

4.34 Asked to state whether the Government has come to know of any such cases, and, if so, what corrective measures were taken, the Secretary Ministry of Works and Housing stated in evidence that:—

> "We do not have information that these kind of things are happening. I will check it again. If it comes to our notice, we will take action."

4.35 It is imperative that the hand-pumps installed under the water supply programme are properly maintained and, in the case of a break-down, promptly repaired. At present, after the hand-pumps are installed and handed over to the local bodies, there is no system of collecting periodical information as to how many of them are lying idle on account of break-downs which could not be attended to and for how many days. Since the public benefit of the expenditure made on the Drinking Water Supply Programme depends on the continued operation of the hand pumps, the Committee would like a survey to be made on hand pumps installed under the programme so far to find out how many of them are actually functioning and how many are not functioning and for what reasons. The Committee would like to be apprised of the results of the survey alongwith a statement showing State-wise, the number of non-functioning had-pumps in six months time.

For the future, there should be a regular system of monitoring information on the operation of the hand-pumps either at the State level or at the Central level for concurrent appraisal of the problems and taking corrective measures.

4.36 The Committee would like the Ministry of Works & Housing to direct their officers that when they visit various States for assessing the progress of the drinking water supply programme they should also test check a few hand-pumps installed under the programme which may not be functioning and find out whether the non-functioning of the hand-pumps is on account of insufficiently deep digging, bad workmanship or poor quality of the equipment. The findings in the reports of these officers should be followed up by the Ministry of Works & Housing with the State Governments concerned.

CHAPTER V

SANITATION FACILITIES

A. *Sanitation under MNP*

5.1 It has been stated by the Ministry that Sanitation is not a component of the Minimum Needs Programme. Urban and Rural sanitation are, however, part of the normal programme in the State Sector. Scheme have accordingly to be drawn up and implemented by the State Governments with funds provided in the State Plans.

5.2 The Committee enquired as to why was sanitation not included in the Minimum Needs Programme, the Ministry have stated that the components to be included in the Minimum Needs Programme are decided by the Planning Commission and the National Development Council. The Ministry of Works and Housing is not aware of the reasons why sanitation was not included in the Minimum Needs Programme.

B. *Targets and Achievements*

5.3 The following information has been given to the Committee in regard to the achievements and targets in respect of provision of sanitation facilities in the Rural as well as Urban Sectors in the country:—

	Achievement (Population covered upto 31-3-1981	Target of coverage by the end of the 6th Plan (I.e. 31-3-1985)
Rural Sanitation	0.28 crores (0.53% of the total rural population).	0.82 crores (1.47% of the projected total population in 1985).
Urban Sanitation	3.99 crores 26.9% of the total urban population).	6.47 crores (1.47% of the projected total urban population in 1985).

Rural Sanitation

5.4 The Ministry of Works and Housing have stated in a note that so far little attention has been given to rural sanitation except for

some pilot projects in a few States. It is estimated that only about 0.53 per cent of the rural population have access to sanitation facilities.

5.5 The Sixth Five Year Plan Document, however, has drawn the attention of the State Governments to the fact that much more can be done in this area through self help schemes organised by the village communities. Simple low cost designs of water seal latrines have already been developed in many areas. Extension efforts will need to be made on a large scale to assist the village organisations in the adoptation and use of these designs, with such local modifications as may be necessary. A solution of the problem of rural sanitation, can be hastened through large scale mobilization of voluntary effort at the village level through attempts by the State Governments and local agencies. The effort in the Sixth Five Year Plan is to make a modest beginning in this direction by undertaking pilot projects in the States which would help in making an assessment of community attitudes in the rural areas as to the type of latrines to be provided and the nature of sanitation facilities needed.

5.6 The Committee enquired as to what were the reasons for "little attention" being paid to the provision of sanitation facilities especially in the rural areas, the Ministry in a written note have stated that "keeping in view the fact that there is considerable backlog in the provision of sanitation facilities in the rural areas (the coverage is less than 1 per cent of the rural population) and the limitation of budgetary resources, not much attention has been paid to rural sanitation.

5.7 During International Drinking Water Supply and Sanitation Decade (1981—90), it is proposed to try to cover 25 per cent of the rural population with sanitation facilities.

Urban Sanitation

5.8 It has been stated that the following target have been fixed under the International Drinking Water Supply and Sanitation Decade (1981—90) for urban sanitation:—

> "100 per cent coverage of the population of Class I cities with sewerage and sewage treatment facilities and low cost sanitation methods in respect of other towns. Overall coverage of urban population by all methods of sanitation facilities is expected to be 80 per cent of the urban population."

5.9 The Ministry have stated that so far as urban sanitation is concerned, the provision of sanitary facilities to urban population, which are considerably larger and more concentrated compared to the rural populations, is undertaken generally by the local bodies. The Central Government is assisting the State Governments in the preparation of feasibility studies for low cost sanitation, in collaboration with the UNDP.

5.10 Asked to indicate the progress made so far, the Secretary, Ministry of Works and Housing stated in evidence that:—

> "We can only say that, in the 6th Plan, some States have made a beginning. Some are providing subsidy for rural sanitation and the physical target for coverage in terms of number of villages in the 6th Plan is like this:

		villages
Jammu and Kashmir	..	200
Madhya Pradesh	..	600
Orissa	..	6
Tamil Nadu	..	1500
Andaman and Nicobar	..	4
Goa		6

> I must confess, we do not have a full feedback on this."

5.11 Asked to state the position in respect of other States/Union Territories and whether these States/Union Territories have made any beginning, the Ministry have stated that under the 6th Five Year Plan, State Governments are to make a modest beginning in providing sanitation facilities in the rural areas. As the subject of rural sanitation is in the State sector, the funds and the targets have to be fixed by the State Governments themselves, depending on the priority they attach to the programme. No specific targets have been laid down in the 6th Five Year Plan.

5.12 So far as the Ministry of Works and Housing is concerned, State Government representatives are advised during discussions in tht Planning Commission to provide adequate outlays for this programme. However, due to constraint on resources, it is a fact that adequate outlays could not be provided so far, in the State Plans for rural sanitation.

5.13 The Ministry of Works and Housing have admitted that so far little attention has been paid to sanitation in the urban as well as rural areas. At the beginning of the 6th Plan period (1981-82), the rural and urban population covered by sanitation scheme was only 0.53 per cent and 26.9 per cent of the total rural and urban population respectively. The Committee find that the 6th Plan targets are none too impressive and in the case of rural and urban sanitation, coverage of only 1.47 per cent and 30.3 per cent of the projected total rural and urban population in 1985 has been planned for. Even the Decade Programme envisages coverage of 25 per cent of the rural population and 80 per cent of the urban population by sanitation scheme by the end of 1989-90. The achievement of targets of coverage under the Decade Programme will obviously depend upon allocation of adequate funds for the purpose. The Committee would urge greater attention being paid to the provision of sanitation facilities in the urban and rural areas and allocation of adequate funds for the purpose if the large masses of our people are to be given a decent life free from filth and squalor.

CHAPTER VI

TRAINING AND RESEARCH

A. *Public Health Engineering Training Programme*

6.1 One of the responsibilities of the Central Government in regard to water supply and sanitation programme is the operation of a Public Health Engineering Training Programme. This Programme was started in 1956 as a part of the National Water Supply and Sanitation Programme. The components of the Programme are:—

1. Post-Graduate Training (not a Central programme from 1981);
2. Short-term Courses; and
3. Refresher Courses.

Post Graduate Training Course

6.2 The Ministry of Works and Housing have stated that prior to the commencement of this programme, the State Government departments were mainly manned by graduate engineers who did not have specialised training in Public Health Engineering. There were only a few engineers with post-graduate qualifications in public health engineering either acquired from abroad or who had taken it on their own from the only institution in the country. The need for developing this expertise in the departments was very keenly felt and the Central Government felt that inservice training of the graduate engineers was the only solution to develop this expertise. The Central Government decided that some central support should be extended to State Government so that they could sponsor their graduate engineers for these courses.

6.3 The Central support consisted of stipends to sponsored outstation trainees, tuition and examination fees and the expenses on educational tours of the trainees. The State Governments shouldered the responsibility of meeting the duty pay of the trainees during their absence while on training.

6.4 It has been stated that the scheme is in operation at 4 institutions, namely (i) All India Institute of Hygiene and Public Health,

Calcutta; (ii) Victoria Jubilee Technical Institute, Bombay; (iii) Perarignar Anna University of Technology, Madras; and (iv) Roorkee University, Roorkee.

6.5 The stipendary support was withdrawn in 1980 and 50 per cent of the other expenses was met on a matching basis for a further period of one year. The total number of engineers who benefited from this course upto 1980-81 was 963. The turn out in 1980-81 was 35. During evidence, the Adviser, Ministry of Works and Housing informed the Committee that the total expenditure from 1956 to 1981 on this programme was Rs. 42.7 lakhs. According to him the curtailment of the Central Government support for this programme in 1980-81 and the withdrawal of support altogether from 1981-82 "was based on the policy decision taken by the National Development Council and the Government in 1978-79 to decentralise and transfer to the State all the centrally sponsored schemes." However, he mentioned that "one of the recommendation of the Working Group is that this programme should be continued so that trained manpower is available to all the States and as such it is under the active consideration of the Government whether to re-open this programme."

6.6 *Short-term course*: This course was started with the idea of providing public health engineering orientation to subordinate engineers with diploma in engineering who could not get admission to the post-graduate academic course. Three such courses of 3 months' duration are conducted as an annual feature at the Perarignar Anna University of Technology' Madras. The Central support consists of stipendary assistance of Rs. 600/- for the entire period of the course for each sponsored outstation trainee, tuition and examination fees and expenses towards educational tours. Expenses on the staff to the extent of 50 per cent of the actuals, subject to a ceiling of Rs. 22,500/- per annum, is also met by the Ministry. By the end of 1981-82, a total of 1405 engineers are reported to have been trained through this course.

6.7 During evidence, asked to state as to when was this short term course started, what was the method of selection of students and what expenditure had been incurred on the course uptil now, the Advisor Ministry of Works and Housing replied:

> "It was started in 1956 . . . the eligibility is either Diploma holder or Degree holder but usually State Government officers are deputed. Selection is based on the norms and rules and regulations which are laid down. Selection

is done by the institutes themselves as per the rules and regulations of the University. As far as the question of expenditure is concerned, the expenditure is Rs. 15.7 lakhs."

6.8 Enquired as to why this course is conducted only at one institute whereas the post-graduate and refresher courses were held at more than one locations, and the reasons for low turn-out, the witness stated:

"It is only being run at Guindy, Madras, The capacity is 30 in each course which means 90 persons can be trained in one year. When we announced this course three institutions showed their willingness but now only Guindy institute is continuing with this."

6.9 A suggestion was made during the evidence that the States should give incentives to the trainees who come forward for this course. Giving his reaction to this suggestion, the witness stated: "in regard to promotions, they have better chances."

6.10. *Refresher courses*: A large number of refresher courses are being conducted by the Ministry to facilitate training of engineering and para-engineering personnel on specific topics needing special emphasis. The course durations range from a week to 10 weeks. The courses are conducted by academic and research institutions and State Public Health Engineering Departments/Boards. The Ministry gives assistance to meet the expenditure on:

1. Stipends in some of the longer duration courses;
2. Chemicals and Glass-ware;
3. Hiring of auditorium and lecture halls etc;
4. Transport for field trips;
5. Honorarium to lecturers;
6. TA/DA to special lecturers;
7. Stationery; and
8. Contingencies.

6.11 The number of persons trained upto the end of 1981-82 has been indicated as 3182.

B. *Adequacy of Trained Manpower*

6.12 In a memorandum from a non-official received by the Committee it has been stated:

> "In India, there have been estimates that about 2000 post-graduate and 40,000 graduate engineers and an equal number of diploma holders in environmental engineering will be required for meeting the needs of the Decade Programme. Compared to these requirements what has been done now through the available engineering colleges and polytechnics in the country is merely scratching the surface; Intensive manpower development efforts at post-graduate, graduate and diploma levels in environmental engineering is called for if we are to even hope for a reasonable degree of success."

6.13 Asked to state whether the training programmes in hand were adequate for meeting the needs of the Water Supply and Sanitation Decade Programme (1981-90), the Ministry have stated:

> "The International Drinking Water Supply and Sanitation Decade has been launched in India in April, 1981. The Ministry of Works and Housing has taken the lead in assessing the requirements and the availability of various categories of personnel. The Working Group on Programme and Manpower has gone into these aspects in detail and made suitable recommendatitons. The training programme at present are not adequate and have to be stepped up considerably to meet the requirements of the Decade. Further action will be taken in consultation with the State Governments to strengthen and expand the training programmes in tune with the requirements."

C. *Research and Development*

6.14 The Conference of Chief Engineers on Planning for the International Drinking Water Supply and Sanitation Decade *inter alia* made the following recommendations:—

(i) Each State should have a research and development Laboratory attached to the Public Health Engineering Departments/Boards and initiate programme to meet local needs.

(i) CPHEEO, NEERI and other organisations at National level should coordinate the R&D programme with States, Universities and Engineering Colleges to avoid duplication of efforts.

(iii) At least 2 per cent of the total investment for the projects in the decade programme should be ear-marked for strengthening infrastructural facilities of research institutions and undertakings.

6.15 Enquired about the action taken by Government to encourage and augment research and development work on water supply and sanitation, the Advisory, Ministry of Works and Housing stated in evidence:

"While it is recognised that every State should have its own R&D wing to meet local needs, quite often, it is a question of paucity of funds. Under the CSIR the Centre has set up the National Environmental Engineering Research Institute at Nagpur with regional laboratories at places like Lucknow, Madras, Hyderabad, etc. There is close collaboration with State Chief Engineers; teaching institutions are also involved; they are consulted on what activities should be taken up for research, which would be of help to them there was a conference in 1979 November, . . . This Institute is a well recognised nodal point for such types of research activities throughout the country. Regarding 2 per cent investment, no decision has been taken but the recommendation is before the Government".

6.16 The Committee enquired in how many States/Union territories Public Health Engineering Laboratories have been set up so far as one of the functions of CPHEEO to assist the States in setting up of such laboratories and guiding them in the laboratory techniques is concerned. Secretary, Ministry of Works and Housing stated in evidence that "for a number of. States we have given technical assistance for establishing laboratories. Except for North Eastern States, all states have laboratories but the level of efficiency is not the same. It is quite true."

6.17 The Committee find that the training programmes linked to the implementation of the Drinking Water Supply and Sanitation Programme are woefully inadequate. The inadequacy of the existing training programmes to meet the requirements of the Decade

has been admitted by the Ministry of Works and Housing themselves. The Committee expect that steps will be taken by the Ministry to extend the training facilities at various levels to meet the requirements of the Drinking Water Supply and Sanitation Programme.

6.18 The Committee have been informed that the question of reviving Central support to Post Graduate Training Course in Public Health Engineering, which was suspended in 1981-82, is "under the active consideration of the Government". In view of the inadequacy of the trained technical manpower, the Committee would like an early decision to be taken in the matter.

6.19 The Committee recommend that, besides the Perarignar Anna University of Technology, Madras, short term courses in Public Health Engineering Orientation should be available in a few other institutions also. The Ministry of Works and Housing should address technical institutions in the country to find out whether they would now be interested to introduce this course with the assistance of the Central Government.

6.20 There is merit in the suggestion for earmarking two per cent of the total investment for projects in the Decade Programme for strengthening infrastructural facilities of research institutions and undertakings, made by the Conference of Chief Engineers on Planning for the International Drinking Water Supply and Sanitation Decade. The Committee would like the Ministry to take an early decision on this recommendation of the conference.

CHAPTER VII

INTER MINISTERIAL COORDINATION

7.1 The Committee observed that Sanitation, Water Pollution and Public Health were also the concern of the Ministry of Health and Department of Environment. Asked to state whether the responsibilities and functions of both the Ministry of Health and Family Welfare and the Ministry of Works and Housing were clearly demarcated, to avoid overlapping and duplication of efforts, the Secretary, Ministry of Health during evidence observed as follows:

> "This is a basic question relating to the Ministry of Works and Housing. They have a coordination Committee; an apex body is there for the programme. We have a senior representative on this body and the coordination is effected. As regards the other part, we have sent a note separately."

7.2 The Ministry of Health and Family Welfare have, in a note, stated as follows:—

> "(1) Much of incidence of water borne diseases in both urban and rural areas in the country is basically due to the absence of safe drinking water and sanitary facilities in them. In order to prevent and control these diseases, following measures are necessary:—
>
> (i) Provision of safe drinking water and sanitary facilities.
>
> (ii) Health education of public particularly on personal Hygiene.
>
> (iii) Improvement in hygiene of community food arrangements like hotels, restaurants, eating places in weekly market, fairs etc.
>
> (iy) Early reporting of cases for isolation and treatment in the event of the outbreak of any water-borne diseases and immunisation of persons at risk.
>
> (2) Out of all the above public health measures, the most vital is the provision of safe drinking water and satisfactory sanitation arrangements.

(3) At present, there are still a large number of problem villages which are without safe drinking water supply sources and their estimate number is 2,30,784 (as on 1-4-1980). . .

(4) Logically speaking, the provision of safe drinking water and sanitary facility is a public health measure and, therefore, the Ministry of Health and Family Welfare should be the administrative Ministry to deal with the subject. Under the Government of India, this was the arrangement upto 1974, when the subject Water Supply and Sanitation Scheme was transferred to the Ministry of Works and Housing and it continues to be its administrative Ministry, while the Ministry of Health and Family Welfare deals with Public Health and the Department of Environment, with water pollution. There is now a Coordination Committee under the Ministry of Works and Housing, where the Ministry of Health and Family Welfare are represented for coordination between the programmes on the health side and those on the water supply, sanitation and environmental aspects.

(5) The existing arrangement on the allocation of the above subjects to Ministry of Health and Family Welfare, Ministry of Works and Housing and the Department of Environment is considered not satisfactory. It is desirable that all these subjects namely Water Supply, Sanitation, Water Pollution and Public Health are dealt with by one Ministry and by the Ministry of Health and Family Welfare.

(6) If the Ministry of Health and Family Welfare become the administrative Ministry to deal with the above subjects then,

(a) it will help in these subjects, namely water supply, sanitation, water pollution and public health being given the appropriate significance that these are primary para-metres of public health measures for the community, and

(b) it will give due emphasis from the point of public health in the matters of

(i) selection of problem villages on priority,

(ii) quick implementation of water supply schemes on priority in problem villages in the context of limited available financial and material resources, and

(c) It will ensure proper management of water supply schemes with proper quality control of water, delivered by an on-going scheme in ordinary circumstances and more particularly, during any situation of out-break of any water borne diseases/epidemic in any concerned area.

(7) Simultaneously, with the Ministry of Health and Family Welfare being made the administrative Ministry for the above subjects, the Central Public Health Environmental Engineering Organisation (CPHEEO), now dealing as the directorate level organisation with water supply and sanitation matters, and now functioning under the Ministry of Works and Housing need function under the control of the Ministry of Health and Family Welfare.

(a) It will help in ensuring proper public health bias in

(1) Planning and, (2) Monitoring of

(i) implementation, and

(ii) maintenance of water supply schemes and sanitation.

(b) It will facilitate easy coordination of CHPEEO with other public health authorities at the levels of the Centre as well as the States/Union Territories.

(8) Thus, in conclusion, it is suggested that the Ministry of Health and Family Welfare be the administrative Ministry tc deal with water supply, sanitation, water pollution and public health in place of the existing arrangement of Ministry of Health and Family Welfare being the administrative Ministry for public health, Ministry of Works and Housing, for water supply and Sanitation and the Department of Environment for water pollution. The Government of India have set the national goal of "Health for all by 2000AD". In this context, it is vitally important that the Ministry of Health and Family Welfare be given not only the pivotal responsibility in this national effort but also the scope to deal effectively with public health measures which are so crucial for the achievement of this national goal."

7.3 During evidence, the Secretary (Works & Housing) was asked as to what was the consideration on which the subject of Drinking Water Supply and Sanitation was, transferred from the Ministry of Health to the Ministry of Works & Housing in 1974. He replied:

> "at Cabinet Secretary's level an inter-ministerial meeting was held and the Ministry agreed".

7.4 On the question of Inter-Ministerial Coordination on the subject of Drinking Water Supply and Sanitation the Committee desired the Ministry of Works and Housing to furnish a detailed note to them. The note received from that Ministry on 19th March is reproduced below:

> "There are built-in arrangements for coordination in respect of subjects for which such coordination is required. For example, the Hinistry of Health is represented to the Apex Committee of the Water Supply and Sanitation Decade for ensuring that the health aspects of the water supply and sanitation programme are taken care of;
>
> A suggestion has been made that water supply and health are closely linked and, therefore, at the Government of India level the administrative arrangements for dealing with these subjects should be reviewed. It may be mentioned that links between various programmes with the ultimate objective of better health and well-being of the population are required in the number of spheres involving not only the Works and Housing and Health Ministries but also the Department of Environment of the Ministry of Rural Development, the Ministry of Social Welfare and the Ministry of Home Affairs. The liaison between the Ministry of Works and Housing and the Ministry of Social Welfare is particularly closest since the major programme of the latter Ministry is the Integrated Child Development Scheme which has a heavy accent on better health, water supply and sanitation for women and children in the rural areas. For this reason, close to 50 per cent, of the UNICEF assistance received by that Ministry is earmarked for rural water supply.
>
> Similarly, it has already been pointed out to the Committee that 80 per cent of the water pollution in the country is due to imperfect disposal of human waste and, therefore,

the liaison between this Ministry and the Department of Environment has to be extremely close.

It is our view that the built-in arrangements for coordination between the various Ministries in the Government of India are, by and large, satisfactory. If any integration in efforts is needed between sectors in order to maximise benefits, this has to be done at the delivery point, which is either the village or the town or at the block or district level. These programmes are basically State programmes. Coordination and integration is needed from the State Government level downwards. Since the Government of India does not have direct operational responsibilities in these sectors, by and large, integration does not have the same relevance at this level and, in any case, cannot be achieved by administrative arrangements.

There is another very important aspect to consider. Water supply and sanitation go together. As far as urban areas are concerned, the municipalities and other local bodies have a very important role to play. The objectives of full coverage of urban population and proper maintenance of the water supply systems as well as the provision of safe sanitation to the entire population cannot be achieved unless there is continuous touch with the local bodies and an understanding of their problems. The subject of Local Government is being looked after by the Ministry of Works and Housing. High level consultations and important decisions are taken at meetings of the Council for Urban Development and Local Government presided over by the Minister for Housing and attended by Ministers for Housing and Urban Development.

Recently the subject of Human Settlements has been identified for purposes of the Allocation of Business Rules of the Government of India and is proposed to be allocated to this Ministry. The Central Council of Ministers for Urban Development and Local Government have resolved to rename the Council as the Council for Human Settlements and Local Government. Human Settlements consists of the subjects of Housing, Urban Development, Water Supply and Sanitation and Local Government. It is not advisable to separate these components.

Quite apart from the foregoing, it is necessary to look at the record. The National Water Supply and Sanitation Programme was started in the year 1954 and at that time the CPHEEO was created under the Ministry of Health. Only technical guidance was given by that body for a long time and no detailed monitoring the programme was done. In the year 1972, the Estimates Committee of Parliament reviewed the programme and 1.53 lakh villages were identified as 'problem villages' in the country. During 1972-73 the Central Government introduced the Accelerated Rural Water Supply Programme. This programme was operated only for two years and about Rs. 36 crores was released to the various States. During this period also, there was no proper feedback as to the achievement. From the records of the CPHEEO, there is no indication as to how many villages were covered and what population was benefited. In 1974 the whole programme was transferred to the State sector. In February, 1973 the subject of Water Supply and Sanitation was transferred from the Ministry of Health to the Ministry of Works and Housing. The Accelerated Rural Water Supply Programme was re-introduced in 1977-78. The Rural Water Supply Programme is very closely monitored by the Ministry and the progress has been steadily going up. The number of problem villages covered is as follows:

1977-78 . . .	12922	1782 habitations
1978-79 .	20929	
1979-80 .	22822	
1980-81 . .	25978	
1981-82 . . .	29837.	

The coverage expected in 1982-83 is 42,000 villages. The target coverage for 1983-84 is 48,000 villages.

These facts may kindly be taken into consideration before any recommendation is made regarding the administrative arrangements for this subject at the Centre."

7.5 Having carefully considered the views of the Ministry of Health and Family Welfare and the Ministry of Works and Housing on the subject of administrative arrangements in respect of Drinking Water Supply and Sanitation Programme, the Committee have come to the conclusion as referred to earlier in this Report, that it would be more appropriate if the subject of Drinking Water Supply and Sanitation is transferred from the Ministry of Works and Housing to the Ministry of Health and Family Welfare which was handling it till 1974. .. ..

NEW DELHI;
April 14, 1983
Chaitra 24 1905 (*S*)

BANSI LAL,
Chairman
Estimates Committee

APPENDIX

STATEMENT OF RECOMMENDATIONS/OBSERVATIONS

S. No.	Para No.	Recommendations/Observations
1	2	3
1	1.13	The Committee note that the functions of the Central Government in the matter of drinking water supply and sanitation are limited to arranging training and technical guidance and granting financial assistance to the States and Union Territories as well as monitoring the progress of the Centrally sponsored schemes. In view of the great importance of providing these basic amenities and the poor progress as well as the skewed pattern of development noted elsewhere in this Report, the Committee feel that Central Government ought to be involved better *inter-alia* augmenting the central allocation of funds for this purpose. India is a signatory to the U.N. Resolution in regard to safe water supply and hygienic waste disposal and has pledged for full support to the international decade programme. It is, therefore, incumbent on the Central Government to ensure fulfilment of the international commitment.
2	1.14	A major part of the functions and responsibilities of the Ministry of Works and Housing on the subject of drinking water supply and sanitation are being handled by the Central Public Health and Environmental Engineering Organisation (CPHEEO) which is the Technical Wing of the Ministry. The Organisation has been entrusted with a variety of functions. The

1	2	3
		strength of officers and staff of the Organisation in position, however, appears to the Committee to be far too inadequate to discharge these functions effectively. The Committee would particularly lay stress on proper monitoring of the water supply and sanitation. programmes being implemented all over the country and scrutiny of progress reports received from the State Governments/Union Territory Administrations, making on-the-spot studies and taking corrective steps where necessary. The Secretary (Works and Housing) observed before the Committee that "considering the size of the task and the increased involvement of the Government of India in a programme which is widespread, both in the rural and urban areas, we think it is necessary to strengthen it (CPHEEO) further." The Committee recommend that the organisation should be adequately strengthened in quantitative and qualitative terms to function effectively as an apex body for guiding, coordinating and monitoring, the Drinking Water Supply and Sanitation Programme of the country. The Committee would also suggest that the Organisation should be given a statutory basis as has been done in the case of Central Water Commission.
3	2.26	Insofar as the supply of drinking water to rural area is concerned, upto end of March 1981, only 16.20 crores of the rural population (i.e. 30.94 per cent) is reported to have been covered. Further the detailed State-wise break-up of the population covered furnished to the Committee indicates large imbalances as between different States/Union Territories in regard to the percentage of rural population covered. The coverage of rural population ranges between 7.20* in respect of Uttar Pradesh and 70.28 per cent in the case of Gujarat. Besides Uttar Pradesh, the coverage is very poor in West

*Subject to recheck by Government.

1	2	3
		Bengal (15.79 per cent); Assam (19 per cent); Maharashtra (19.19 per cent); Meghalaya (19.6 per cent) and Lakshadweep (8.5 per cent). Thus the need to step-up the coverage as a whole and to concentrate on the States where the coverage is very poor has assumed a dimension and urgency which have to be appreciated and concerted steps taken in that direction. Such serious regional disparities in the basic amenities such as drinking water supply should not persist.
4	2.27	The Committee would like to draw the attention of the Ministry of Works and Housing to the acute problem of drinking water in the hilly areas and certain other areas of the country highlighted on the floor of the Lok Sabha time and again. They would like the Ministry to undertake, in coordination with the State Governments, special programmes for covering such areas in the shortest possible time.
5	2.28	The Committee note that in 1980-81 and 1981-82 the coverage of Scheduled Castes population was 9.17 and 14 per cent and the Scheduled Tribes population covered was 8.85 and 9.82 per cent respectively. They have also been informed during evidence that the Ministry of Works and Housing have taken steps to ensure that the needs of S.C./S.T. are being met adequately and are watching the progress through quarterly reports from the States which are to cover information in more details from the State Governments, with regard to the number of villages/hamlets covered under the programme especially those dominantly populated by S.C./S.T. The Committee was assured during evidence that the scheme for providing drinking water supply in SC/ST areas was likely to be completed by 1985. They hope that this assurance would be implemented.

1	2	3
6	2.28A	The Committee would like to emphasise that mere collection of statistics about number of villages covered under the Drinking Water Supply Scheme is not enough. There should be a system of regular inspections and at least test-check by a joint team of officers of the Ministry of Works and Housing and of the State Governments to see whether the people in the problem villages reported to have been covered, are actually receiving the drinking water and assess the problems. In this context the Committee would like the Ministry to verify and report to the Committee whether the benefit of the following regional rural water supply schemes has actually reached the population of the villages covered by these schemes:— (i) Palari Siddhan Regional Rural Water Supply Scheme, Distt. Jodhpur (Raj.) (ii) Gandhi Vidya Mandir Sardar Sahar Regional Rural Water Supply Scheme, Distt. Churu (Raj.) (iii) Chandgethi Regional Rural Water Supply Scheme, Distt. Churu (Raj.) (iv) Shambhugarh Regional Rural Water Supply Scheme, Distt. Bhilwara (Raj.).
7	2.29	Although overall 75.08 per cent of the urban population has been covered by drinking water supply as on 31 March, 1981, the coverage is very low (less than 50 per cent) in Haryana (47.16 per cent) and the Eastern States of West Bengal (30.75 per cent); Sikkim (22.43 per cent); Assam (21.87 per cent); Meghalaya (28 per cent); Nagaland(29.07 per cent); Mizoram (14.7 per cent); Tripura (39.62 per cent) and Orissa (39.27 per cent). Inadequacy of resources of

1	2	3
		these States, appears to be the main reason for this situation. At present Central Government has no responsibility in regard to urban water supply in the States. The Committee desire that a centrally sponsored scheme for urban areas limited to States where the provision of drinking water is woefully inadequate should be evolved and put through to correct these serious imbalance. Further Central monitoring covering comprehensively the population in rural and urban areas should be done for suggesting corrective steps and providing assistance, technical and otherwise, where necessary.
8	3.10	The Ministry of Works and Housing are not in a position to state the per capita availability of protected drinking water in the rural areas. This the Committee feel is necessary to be computed. State/Union Territory-wise in order to assess the extent of requirement of augumentation of facilities. The Committee hope that the Ministry would build up adequate data base in the context of ensuring a rational policy and programme of provision of facilities in a planned manner.
9	3.11	The Committee consider that the norms of minimum of 40 litres per capita daily for rural population is too low even for the need of the human beings. Besides, each farmer family has a certain number of animals also which would need water for drinking and the importance of these animals to the life and health of human beings and especially to the farmers needs no emphasis. The Committee, therefore, recommend that the norm should be suitably raised having regard to the needs of domestic animals.
10	3.12	The Committee observe wide variation as between States in the per capita availability of drinking water in urban areas ranging from 10

1	2	3
		litres to 400 litres daily. The Committee recommend that priority should be given to drinking water supply schemes for urban areas in States where the per capita availability is less than the minimum norm of 70 litres per capita daily.
11	3.25	The Committee are disappointed to find that out of about 2.31 lakh "problem villages" proposed to be covered by drinking water supply programme during the 6th Plan period, only about 96,000 villages are likely to be covered by the end of 1982-83. Looking at the achievements made so far, the Committee fear that the target laid down for the 6th Plan period may not be attained unless the Ministry of Works and Housing and the State Governments double up their efforts during the last two years of the Plan period. The Committee trust that the Ministry of Works and Housing and the State Governments would be able to mobilise adequate financial and physical resouces to so intensify the programmes as to be able to cover nearly 70,000 villages during each of the remaining two years of the Plan period for attaining the target laid down for the Plan period.
12	3.26	The Committee note the assurance given to them by the Secretary (Works and Housing) during evidence that his Ministry would consider the question of giving priority in the matter of supply of drinking water to such villages as are in dire need of water supply and are prepared to contribute 50 per cent of the cost of the scheme, the other 50 per cent being borne by the State Government or the Central Government. The Committee would like to be apprised of the result of consideration of this question.

1	2	3
13	3.27	According to the present criteria, for the purpose of providing drinking water on a priority basis a problem village is one where there is no assured source of drinking water within a reasonable distance of say 1.6 km. The Committee consider that distance of 1.6 km. to be covered for fetching drinking water could not be regarded as a "reasonable distance." One has to reckon with the hardship faced by the rural womenfolk in carrying water on their head for long distance sporting enormous energy and time and exposing themselves to the risk of variety of ailments. They recommend that all such villages which do not have an assured source of water within a distance of 0.5 km. should be classified as problem villages for the purpose of taking up water supply schemes on a priority basis. All the additional villages coming under the category of 'Problem Villages' so revised should be covered by drinking water supply schemes by the Seventh Plan Period.
14	3.28	The Committee further recommend that since Central Government have some responsibility in regard to rural water supply, the *interse* priority of problem villages for covering acute problem villages on emergent basis should be decided by the States in consultation with the Centre.
15	3.45	The Centrally Sponsored Accelerated Rural Water Supply programme (ARP) was introduced for the first time in 1972-73 and after being in operation for a period of two years was wound up in 1973-74 in pursuance of the policy to reduce the number of Centrally sponsored schemes. The Committee note that the initial operation of the programme for two years was not properly planned and monitored. The scheme was re-introduced in 1977-78 because the progress of the water supply schemes under the Minimum Needs Programme was found to be

1	2	3
		not adequate and it was decided to have a Centrally sponsored supplementary programme by way of "incentive" to the State Governments. The Committee regret that such an important scheme was not only not conceived and put through properly in the initial stages but was also abandoned for 3 years. If only the scheme had been properly planned, monitored and executed uniterruptedly the position in regard to drinking water supply in rural areas would have been far better than what it is today.
16	3.46	The Committee recommend that the system of release of grant to States under the Accelerated Rural Water Supply Programme should be such as to facilitate orderly progress of water supply programme undertaken by the States. The Committee would like the Ministry of Works and Housing to ascertain the difficulties encountered by the States in the matter of release of grants by the Centre under the Programme and try to simplify and streamline the procedure.
17	3.62	The Committee note that for achieving the targets of coverage of population under the Drinking Water Supply and Sanitation Programme laid down for the Sixth Five Year Plan, the Ministry have, apart from the allocation of Rs. 2300 crores, suggested an additional allocation of Rs. 1500 crores for this purpose. This, it is stated, is under the consideration of the Planning Commission. The Committee hope that in view of the magnitude and urgency of the Drinking Water Supply and Sanitation problem in the country, necessary funds would be made available.
18	3.63	The Life Insurance Corporation has also been providing loans to the local bodies/statutory water supply and sewerage Boards in the States for financing water supply and sewerage schemes. Currently the contribution of LIC for this purpose is to the extent of 6 to 7 per cent

1	2	3
		of the corporations investible funds. This has been counted as plan fund. The LIC is stated to have agreed to step it up to 8 per cent. The Committee desire that the plan allocation should be augmented to the extent of this increase in the contribution of LIC.
19	3.75	Any drinking water supply programme must ensure that the water made available for drinking purposes is uncontaminated and safe for the health of the local populace. Drinking water supply schemes in the urban areas generally depend upon river water or water stored in natural reservoir or tanks, which is distributed through a net work of pipelines. In the rural areas drinking water is taken out of natural reservoirs where rain water is stored or wells or hand pumps. Whether the water is underground or overground (in rivers or reservoirs), it is susceptible to contamination by human waste or industrial waste. Contamination of water by non-effective disposal of human waste is a serious problem over which at present there is no control. The local bodies which are responsible for sanitation and human waste disposal do not have adequate funds to do a thorough job of it. Unless water supply and waste disposal are viewed as parts of an integrated programme, safe drinking water supply cannot be ensured. The Committee would, therefore, suggest that this aspect should be seriously considered by the Ministry and appropriate action initiated to have coordinated implementation of the schemes all over the country.
20	3.76	As regards the problem of Drinking Water Pollution caused by industrial waste, the Committee note that, although the Water Pollution Control Act was brought in force in 1974, so far only 337 industries (out of a total of 1700 pollutionally relevant industries) have commissioned

1	2	3
		Industrial Waste Water Treatment Plants and another 368 are in the process of doing so. This is a highly unsatisfactory progress specially in view of the fact that adequate powers are available under the Water Pollution Control Act to compel the pollutionary relevant industries to put up industrial waste water treatment plants. It is a sad reflection on the performance of the Central Board for Prevention and Control of Water Pollution. The Committee would like the Board to be more energetic in securing compliance with the provisions of the Act. The Committee also desire that a survey be made of all the pollutionary relevant industries which are reported to have put up industrial waste water treatment plants with a view to find out whether these plants are actually in operation. The Committee would expect a report to be furnished to them on the findings of the Survey in six months time.
21	3.77	The Committee find out that the Water Pollution Control Act, 1974 does not cover the States of Maharashtra, Tamil Nadu, Orissa and five North-Eastern Hill States. Thus, areas of large concentration of industries comprised in these States remain excluded from the purview of the Act. The Committee are unaware as to how the problem of water pollution by industrial effluents coming out of industries in these States is to be tackled. The Committee would like the Ministry of Works and Housing to emphasise on these State Governments the importance and need of action on their part to compel the relevant pollutionary industries within the State to set up effluent treatment plant as soon as possible.
22	3.78	Water contamination could also be due to defective or worn out water supply pipes in the distribution system. The Committee would therefore like the Ministry of Works & Housing to

1	2	3
		enjoin upon the State Governments the need for a periodical inspection of water supply pipelines and replacement of pipes which have outlived their lives already. In future only quality pipes should be used so that even if cost goes up, the risk of their deterioration causing water pollution is minimised.
23	3.79	The Committee consider that it should be the responsibility of the Ministry of Health to give wide publicity to the disease control measures being taken by that Ministry and also to educate the people in regard to preventive hygiene, detection and immediate help to patients through the production of and distribution of publicity material, advertisements in the Press and TV/Radio features.
24	3.80	In fact having regard to the nexus between health and safe drinking water supply the Committee feel that the responsibility for providing drinking water and sanitation facilities should be that of the Departments dealing with Public Health in the States and Union Territories and these should be coordinated and maintained by the Ministry of Health at the Centre. The Committee hope that action will be initiated in this regard in consultation with the States.
25	4.8	The Ministry of Works and Housing have the nodal responsibility for the successful implementation of the Drinking Water Supply and Sanitation Programme according to the targets laid down. The Committee, therefore, expect that the Ministry would, in coordination with the other Ministries concerned, arrange for all the materials e.g. Steel, Cement, G. I. Pipes etc. being made available to the State Governments according to their assessed requirements for executing the programme.

1	2	3
26	4.9	In view of the shortage of Pig Iron and Cement and also of the fact that Stone ware pipes are cheaper, the Committee would suggest that in the Drinking Water Supply and Sanitation Programme, attempt may be made to use, wherever possible without compromising on quality of the pipeline, Stoneware pipes instead of G.I. pipes or concrete pipes.
27	4.20	The Committee fail to understand the basis on which the drilling rigs received from UNICEF as gift have been distributed among the various States. They note that among the States having hard rock areas, while Uttar Pradesh has been allocated 5 drililng rigs and West Bengal 6 drilling rigs, the States of Andhra Pradesh, Madhya Pradesh and Tamil Nadu have been allotted as many as 32, 34 and 20 rigs respectively. The Committee wonder whether it is possible to correct this imbalance in the matter of distribution of imported drilling rigs at this stage. If it is possible, steps should be taken to correct the situation to the extent possible.
28	4.21	The Committee are constrained to observe that the utilisation of the drilling rigs has been not more than 60 per cent. Although, various reasons have been adduced for this under-utilisation, the fact remains that the Ministry of Works and Housing have not been getting regular feed-back in regard to the operation of the rigs which were financed out of Central Funds or which were received as gifts from abroad. Now that the Ministry have decided to improve the system for monitoring of the performance of these rigs the Committee hope that it should be possible for the Ministry to ensure optimum utilisation of the rigs by making concerted efforts to remove the handicaps which come in the way of their fuller utilisation. The Committee would like to

1	2	3
		be apprised of the results of monitoring during the next six months alongwith a statement showing, State-wise, the percentage of utilisation of drilling rigs.
29	4.35	It is imperative that the hand-pumps installed under the water supply programme are properly maintained and, in the case of a break-down, promptly repaired. At present, after the hand-pumps are installed and handed over to the local bodies, there is no system of collecting periodical information as to how many of them are lying idle on account of break-downs which could not be attended to and for how many days. Since the public benefit of the expenditure made on the Drinking Water Supply Programme depends on the continued operation of the hand pumps, the Committee would like a survey to be made on hand pumps installed under the programme so far to find out how many of them are actually functioning and how many are not functioning and for what reasons. The Committee would like to be apprised of the results of the survey alongwith a statement showing State-wise, the number of non-functioning hand-pumps in six months time. For the future, there should be a regular system of monitoring information on the operation of the hand-pumps either at the State level or at the Central level for concurrent appraisal of the problem and taking corrective measures.
30	4.36	The Committee would like the Ministry of Works & Housing to direct their officers that when they visit various States for assessing the progress of the drinking water supply programme they should also test check a few hand-pumps installed under the programme which may not be functioning and find out whether the non-functioning of the hand-pumps is on account

1	2	3
		of insufficiently deep digging, bad workmanship or poor quality of the equipment. The findings in the reports of these officers should be followed up by the Ministry of Works & Housing with the State Governments concerned.
31	5.13	The Ministry of Works and Housing have admitted that so far little attention has been paid to sanitation in the urban as well as rural areas. At the beginning of the 6th Plan period (1981-82), the rural and urban population covered by sanitation scheme was only 0.53 per cent and 26.9 per cent of the total rural and urban population respectively. The Committee find that the 6th Plan targets are none too impressive and in the case of rural and urban sanitation, coverage of only 1.87 per cent and 39.3 per cent of the projected total rural and urban population in 1985 has been planned for. Even the Decade Programme envisages coverage of 25 per cent of the rural population and 80 per cent of the urban population by sanitation scheme by the end of 1989-90. The achievement of targets of coverage under the Decade Programme will obviously depend upon allocation of adequate funds for the purpose. The Committee would urge greater attention being paid to the provision of sanitation facilities in the urban and rural areas and allocation of adequate funds for the purpose if the large masses of our people are to be given a decent life free from filth and squalor.
32	6.17	The Committee find that the training programmes linked to the implementation of the Drinking Water Supply and Sanitation Programme are woefully inadequate. The inadequacy of the existing training programmes to meet the requirements of the Decade has been admitted by the Ministry of Works and Housing

1	2	3
		themselves. The Committee expect that steps will be taken by the Ministry to extend the training facilities at various levels to meet the requirements of the Drinking Water Supply and Sanitation Programme.
33	6.18	The Committee have been informed that the question of reviving Central support to Post Graduate Training Course in Public Health Engineering, which was suspended in 1981-82, is "under the active consideration of the Government". In view of the inadequacy of the trained technical manpower, the Committee would like an early decision to be taken in the matter.
34	6.19	The Committee recommend that, besides the Perarignar Anna University of Technology, Madras, short term courses in Public Health Engineering Orientation should be available in a few other institutions also. The Ministry of Works and Housing should address technical institutions in the country to find out whether they would now be interested to introduce this course with the assistance of the Central Government.
35	6.20	There is merit in the suggestion for earmarking two per cent of the total investment for the projects in the Decade Programme for strengthening infrastructural facilities of research institutions and undertakings, made by the Conference of Chief Engineers on Planning for the International Drinking Water Supply and Sanitation Decade. The Committee would like the Ministry to take an early decision on this recommendation of the Conference.
36	7.5	Having carefully considered the views of the Ministry of Health and Family Welfare and the Ministry of Works and Housing on the subject of administrative arrangements in respect of

1	2	3
		Drinking Water Supply and Sanitation Programme, the Committee have come to the conclusion as referred to earlier in this Report, that it would be more appropriate if the subject of Drinking Water Supply and Sanitation is transferred from the Ministry of Works and Housing to the Ministry of Health and Family Welfare which was handling it till 1974.